Jaycar Electronics

Better, More Technical

2013 Engineering & Scientific Catalogue

7000+ Products

772 New Products

516 Pages

Products for the Rocket Scientist in all of us.

Jaycar Electronics
Better, More Technical

A LETTER TO OUR CUSTOMERS

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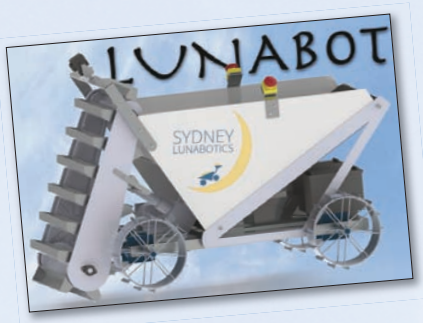
This year's cover depicts a young scientist living his or her fantasy, a fantasy not as far-fetched as it would seem….

NASA for example, is conducting a worldwide competition seeking submissions for a working design for a robot capable of probing the lunar soil. (Read the full story on page 9.)



NASA, like other organisations around the world are beginning to realise the innate skills and talents possessed by bright, creative people everywhere.

With this in mind Jaycar recently conducted a low-key competition to get interested parties to submit projects that they have completed (or largely completed) which addresses a real-world problem. We split the competition to submissions from our staff and submissions from our customer base.

Even though we did not publicise the competition very much we received a surprising number or entries. We were astonished by the scope and imagination displayed by the entrants.

Scattered throughout the pages of this catalogue are stories of the projects as told by the inventors themselves (edited for space and clarity). We've included a website reference and a QR Code that will allow you, via a Smartphone and App, to view the full details of the projects including any pictures and videos sent in by the inventors. If you're unsure about QR codes see page 5 for some tips. We hope that this inspires you. Next year we will probably expand the competition to all corners.

In addition to all this exciting stuff, there is a worldwide movement to encourage people, especially young people, to develop their skills in manual dexterity.

Manual dexterity, an old term, used to mean "good with your hands". People who were good with their hands could use a saw, a hammer and other simple hand tools to turn out a beautiful wooden box, or, say, a metal cabinet or some useful working mechanism.

The movement, which we believe began in the USA, has spawned a phenomenon called "Maker Faire". Maker Faires have been very popular in the USA and elsewhere. In Australia there are plans for Maker Faires (or mini ones) this year in Adelaide (April 6th) and Melbourne (November). Both of these will be their second year hosting a Maker Faire. We'll put a link on our website for more details.

It must be emphasised that the Maker Faire does not just emphasise carpentry or electronics skills. All manner of crafts including welding, plastics fabrication, dressmaking, and papier-mache - virtually anything that requires dexterity and creative function is encouraged. Trade suppliers are encouraged to exhibit.

Back to us.

This year's catalogue is just as physically big as last year's monster - but with more products crammed in. There are over 7,000 products in all, including 772 new ones.

Typical of the new products are; Bluetooth® enabled DMM, Watchmaker Repair tools, new Arduino components, fully wireless DVR with camera kits & 8 Channel DVR Kits, 1080p HD Sports Action Camera, new Digital AV Sender with HDMI, Stereo Headphones, very bright LED replacement globes, 12V Cabin Lighting, and for the car, 4WD or boat we have a new range of high intensity spotlights and floodlights for bumper or roof rack mounting, trailer plugs, sockets, lighting and cables, marine speakers and head unit, mounting brackets for Apple® iMac® & monitors, consumer IP cameras, an extensive new range of mount brackets and chargers for Smartphones, iPods®, iPhones® and iPads®.

There's more so keep an eye out.

New products, as usual, are highlighted with the icon. NEW 2013

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In keeping with our stated pledge to continue to open 'bricks and mortar' stores we have opened up in Caloundra QLD, Elizabeth SA, Ferntree Gully VIC, Tuggerah and Warners Bay in NSW in the last 12 months. All of these stores have been well received and we thank you for your generous patronage. Strathpine and Browns Plains (both in QLD) are due to open before end of May this year.

Our online TechStore continues to thrive and we are working on new software systems to make this service even more effective. It seems that our online customers love our "TechStore ONLY" specials, which often sell out in days. If you want to participate in this register yourself at www.jaycar.com.au.

Even though some of competitors have fallen away we are working harder than ever to earn your business.

Let me assure you that this won't cease.

Finally, on behalf of all my fantastically dedicated staff I would like to thank all of you for giving us your support. If we ever let you down in your estimation, please write, call or e-mail us immediately.

Best wishes from all of us for 2013.

Gary Johnston.

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Jaycar Electronics
Better, More Technical

At Jaycar we wish your shopping experience to be as convenient and effortless as possible. We guarantee excellent customer service, whichever method you choose.

HOW TO ORDER

5 EASY WAYS TO ORDER

1. VISIT YOUR LOCAL JAYCAR STORE
With over 80 stores in Australia and New Zealand our network of retail stores continues to grow. Come and visit us at one of these locations - see our website or the back cover for full address, phone and trading hours details. Our friendly, experienced staff look forward to showing you our extensive range of products.

2. CALL OUR TOLL FREE HOTLINE 1800 022 888
Our experienced Techstore staff are waiting to take your order. Techstore operates Monday to Friday 8.30am to 5.30pm and Saturday 8.30am to 5.00pm (AEST)

3. ORDER ONLINE www.jaycar.com.au
Place orders from the convenience of your home on our secure website 24 hours a day, 7 days a week

4. POST YOUR ORDER Send through the post, enclose your completed order form (on page 496) and send to:

Jaycar Electronics
PO Box 7172
Silverwater DC NSW 1811 Australia

5. FAX YOUR ORDER Simply complete the order form (on page 496) and fax it any time to (02) 8832 3318

JAYCAR TECHSTORE

In a case where you are unable to get to your local Jaycar store, we provide you with the Jaycar Techstore.

Fax or Email your order to us at any time or alternatively you may speak to one of our professional shop trained staff members who will be readily available to assist you.

Jaycar Techstore
Your Virtual Access Point

Free Call order Line: 1800 022 888
Monday to Friday 8.30am to 5.30pm
Saturday 8.30am to 5.00pm (AEST)
Email: techstore@jaycar.com.au

MORE INFO WEB

JAYCAR WEBSITE

SEARCH, BROWSE & BUY ANYTIME, ANYWHERE.

www.jaycar.com.au
Everything you could need in one convenient location our website gives you admission to all things Jaycar or Jaycar related.

- Product information
- Datasheets
- Monthly advertising
- Promotions
- Forum
- Videos
- Store locations
- Online only specials

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Mobile friendly website to search and purchase products wherever you are.

m.jaycar.com.au

ICONS FOR VIDEO & MORE INFORMATION FEATURED ON OUR WEBSITE

VIDEO TUTORIALS

Look for this icon in 2013, we are building our library of videos to show how to build some items like say kits, and to also show product features and how they can be used.

WATCH VIDEO

MORE INFORMATION

MORE INFO WEB

Look on the website for more information on this product or range

KIT BACK CATALOGUE

We maintain in our central distribution warehouse an extensive range of discontinued Electronic Project Kits.

On our website each of these kits has a full description and, where available, a link to the original article on the Kit.

More details are available on pages 79 or visit **www.jaycar.com.au/kitbackcatalogue**

iPHONE® STORE LOCATOR APP

Locate your nearest Jaycar store on your iPhone®
For more information please visit the website
www.jaycar.com.au/stores

JAYCAR CARDS - ICONS

VIP TRADE CARD

ATTENTION ALL TRADIES...

If you're a professional engaged in the regular purchase of electronics goods for business purposes, you may qualify* for a Jaycar Electronics Trade Card.

Our Trade Card gives you access to special trade prices in all our Jaycar stores including our online Techstore. Jaycar provides you with convenient locations, fantastic service and great prices!

HOW DO I GET A NEW TRADE CARD - VIP?

For full details apply online or at your local store.
To apply visit:
www.jaycar.com.au/tradecard

*Conditions apply:
Trade Cards are not available for transactions outside Australia and New Zealand. They are valid at Jaycar company owned stores ONLY.

Products on special excluded.

GIFT CARDS*

Can't decide what to buy for that "hard to buy for" person?

Give them a gift card! We've replaced our paper vouchers with new debit card size plastic one.

These are available for purchase in-store or online. These are a great gift idea, easy to use and you can now check the balance of the card online.

* Minimum value $20 and conditions apply. Only available for Australian and New Zealand Customers. Full terms and conditions available - see our website.

JAYCAR REWARDS CARD PROGRAMME

OUR WAY OF SAYING THANK YOU!

We sincerely apologise. We thought our exciting rewards programme would be up and running by now, but some technical issues have delayed the launch. We are now in the final testing stage and are expecting to launch in June. You can subscribe for your card now at **www.jaycar.com.au/rewards**

WHAT IS A REWARDS CARD?

As a way of saying thank you - everyday - we've put together a loyalty programme, we've called Jaycar Rewards. It's for our regular customers who love DIY everything electronic! The Jaycar Rewards programme will entitle you to accumulate points with every purchase* at any Jaycar Store*. We're going to run special promotional deals just for club members and lots, lots more. Keep an eye out for these promotions in our monthly brochures later this year.

HOW DO YOU GET A REWARDS CARD?

The Rewards programme will launch this June but you can apply for the cards now by visiting **www.jaycar.com.au/rewards** and filling in the online application form. We will then send you your very own Jaycar Rewards card*. So keep an eye out. Again from all of us at Jaycar, thank you for your continued support and we look forward to being able to provide assistance to you when you next visit your local Jaycar Store.

* Conditions apply, company stores only and only available for transactions in Australia and New Zealand.

To apply visit
www.jaycar.com.au/rewards

QR CODES - HOW THEY WORK

QR codes are used as a shortcut to particular mobile/website locations without having to type in long web addresses. Mainly used by mobile devices - Smartphones & Tablets.

Just download a QR Reader App from iTunes® or Google Play® and scan the code. Your device will directly land you on the relevant website page.

ICONS TO LOOK OUT FOR

Brand new product for the Jaycar 2013 Catalogue.

Tech Tip
Handy tips and information.

D.I.Y
Build it yourself components.

Books located here. Full index of books located on page 513.

We constantly negotiate better pricing and pass these savings on to you. This icon identifies products that have lower prices in this catalogue.

More Info Icon
More information can be found on our website.

Crazy Clearance Icon
End of line items at crazy prices.

Yellow price bars denote a clearance/discontinued product.

Highlights other products in the Jaycar catalogue that are related.

Product warranty period is three months unless stated by the blue warranty icon. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. For details refer to page 497 or online at www.jaycar.com.au/warranty.

Trademarks
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MORE NEW PRODUCTS IN 2013...
More than 770 new products added to this issue - on the following pages we've highlighted just a few. So grab a cup of tea or coffee and have a browse!

NEW PRODUCTS IN 2013

TOOLS, TEST & MEASUREMENT PRODUCTS

10MHz/4000 COUNT HANDHELD SCOPE DMM
QM-1577
P22

PROFESSIONAL LASER DISTANCE METER - 35m
QM-1622
P27

WI-FI INSPECTION CAMERA TO SUIT AN iPHONE®
QC-3351
P30

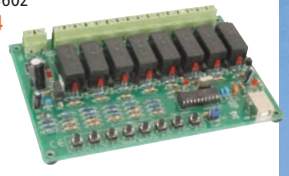
4 PIECE WATCHMAKERS' KIT
TH-1932
P43

MINI GAS SOLDERING TOOL SET
TH-1606
P54

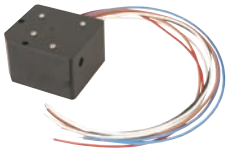
KITS, MECHATRONICS & SCIENCE PRODUCTS

SPEED CONTROL KIT FOR INDUCTION MOTORS
KC-5509
P76

8 CHANNEL USB RELAY CARD KIT WITH SMARTPHONE APP
KV-3602
P74

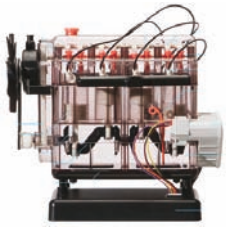


PROGRAMMABLE INTERVAL 12V TIMER MODULE
AA-0378
P80



STEPDUINO ARDUINO COMPATIBLE BOARD
XC-4249
P91

PISTON ENGINE KIT
KJ-8903
P101



5MP USB 2.0 DIGITAL MICROSCOPE WITH PROFESSIONAL STAND
QC-3199
P104

INTERCONNECT, CABLE & ENCLOSURES

IP65 SEALED DIECAST ALUMINIUM BOXES - FLANGED MOUNT
P83

IP65 SEALED ABS ENCLOSURES
P88

5 & 7 CORE TRAILER CABLE - 10M
P116

USB 3.0 SOCKET WITH PUSH-IN TERMINAL BLOCK
PS-0816
P145

HEAT SHRINKABLE BRAIDED SLEEVING
P122

SURFACE MOUNT SCREW TERMINAL STRIPS
P151

7.5 AMP TINNED POWER CABLE 10M HANDY PACKS
WH-3045/46/47
P115

ELECTROMECHANICAL PRODUCTS

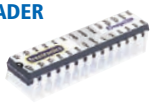
6-WAY MEMBRANE SWITCH PANEL WITH RELAY BOX
SP-0900
P165

PUSHBUTTON SWITCH 6A@250VAC NEON IP56
SP-0751
P159

UNIVERSAL 2-PIN LED FLASHER RELAYS
SY-4016
P165

COMPONENTS PRODUCTS

ATMEGA328P MCU WITH ARDUINO UNO BOOTLOADER
ZZ-8726
P202



IP67 CHROME LED BEZELS - 12V
SL-2625
P207

MARINE SWITCH PANELS WITH CIRCUIT BREAKERS
P180

LED TESTER
AA-0274
P208

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NEW PRODUCTS IN 2013

AUTO & OUTDOORS PRODUCTS

HD CAR EVENT RECORDER WITH LCD
QV-3840
P213

PROFESSIONAL WIRELESS WEATHER STATION WITH 7" COLOUR LCD AND SOLAR POWERED SENSORS
XC-0369
P268

2.4GHz DIGITAL WIRELESS REVERSING CAMERA KIT WITH 3.5" LCD
QM-3802
P215

IN CAR DAB+ RECEIVER WITH FM TRANSMITTER
AR-1902
P219

AS YOU GO ALTERNATOR/ BATTERY MONITOR
PP-2142
P232

3W VHF MARINE WATERPROOF FLOATING TRANSCEIVER
DC-1093
P247

3500 LUMEN IP68 SOLID LED SPOT/FLOOD LIGHTS
SL-3918
P236

750 LUMEN CREE XM-L RECHARGEABLE TORCH
ST-3482
P254

LED FLOODLIGHT MODULES - IP65
P259

11L COOLER & WARMER
GH-1371
P264

PORTABLE METAL DETECTOR
QP-2301
P265

12V/24VDC CIGARETTE LIGHTER SOCKET SPLITTER WITH 2 X USB PORTS
PP-2128
P241

7 PIN FLAT PLUG TRAILER CONNECTOR
PP-2050
P238

POWER & RENEWABLE ENERGY PRODUCTS

DELUXE LARGE SCREEN POWER METER WITH 1m EXTENSION LEAD
MS-6119
P277

PANASONIC® BATTERIES
SB-2906
P292

12VDC TO 230VAC PURE SINE WAVE INVERTERS
P309

3-IN-1 JUMP STARTER - CHARGER - WORK LIGHT
MB-3692
P313

DUAL BATTERY VOLT/ CURRENT MONITOR
MS-6176
P317

150W CAN-SIZED POWER INVERTER WITH 2.1A USB OUTPUT
MI-5127
P306

ABS SOLAR PANEL SIDE MOUNTS, 180MM
HS-8852
P323

SECURITY & SURVEILLANCE PRODUCTS

NETWORK 8 CHANNEL DVR WITH 4 HIGH RESOLUTION CAMERAS
QV-3034
P338

NIGHT VISION MONOCULAR WITH 3 X MAGNIFICATION & IR ILLUMINATION
GG-2129
P352

PAN/TILT/ZOOM DIY WI-FI IP CAMERA - 720p
QC-3838
P347

HIGH DEFINITION VIDEO RECORDER HIDDEN IN "HOLLYWOOD DIRECTOR" STYLE GLASSES
QC-8022
P351

2.5" LCD VIDEO DOORPHONE WITH RFID ACCESS
QC-3622
P368

MOTION ACTIVATED ALARM WITH REMOTE CONTROL
LA-5217
P355

LIKE US ON FACEBOOK

Join the Jaycar Facebook community and keep up-to-date with new products and promotions
www.facebook.com/jaycarelectronics

NEW PRODUCTS IN 2013

LIGHTING/HOME AUTOMATION PRODUCTS NEW 2013

240V MAINS LED LIGHT GLOBES
SL-2210
P369

MR16 24 x 2835-SMD LED DOWNLIGHTS
ZD-0540
P370

36 LED LIGHT STRIP WITH SWITCH
ST-3916
P375

HOME AUTOMATION MAIN CONTROLLER
LA-5592
P382

VIRIBRIGHT 18W PAR38 OUTDOOR LED SPOTLIGHT GLOBES
SL-2225/27
P376

COMPUTER & MULTIMEDIA PRODUCTS NEW 2013

1080p HD ACTION CAMERA WITH WATERPROOF CASE
QC-8020
P384

SUCTION MOUNT BRACKET FOR SMARTPHONES
HS-9030
P387

4.2A DUAL USB CAR CHARGER
MP-3666
P389

SYNC/CHARGE LEAD FOR GALAXY TAB - 1M
WC-7680
P391

LIGHTNING® PLUG TO USB SYNC LEAD
WC-7728
P392

LINE INTERACTIVE UPS - 600VA
MP-5224
P403

RECHARGEABLE WATERPROOF BLUETOOTH® SPEAKER
XC-5208
P395

DIGITAL TV MEDIA BOX WITH ANDROID 4.0
XC-4209
P413

CEILING MOUNT WI-FI EXTENDER ACCESS POINT
YN-8362
P396

ARTICULATING MOUNTING ARMS TO SUIT APPLE® iMAC®
CW-2870
P416

SIGHT & SOUND PRODUCTS NEW 2013

10" PORTABLE PA SYSTEM WITH 7 CHANNEL MIXER
CS-2549
P427

WORLD BAND AM/FM/SW/AIR PLL SYNTHESISED RECEIVER WITH SSB
AR-1945
P440

HDMI SPLITTERS WITH 3D AND 4K x 2K SUPPORT
AC-1700
P460

2.4GHz DIGITAL HDMI AV SENDER/RECEIVER
AR-1871
P443

RED/GREEN MINI LASER LIGHT SHOW WITH RGB LED
SL-3453
P480

12" ACTIVE SUBWOOFER
CS-2429
P470

DIGIMATCH VHF BAND - 3 ANTENNAS
LT-3161
P448

GADGETS & GIZMOS NEW 2013

HIGH SPEED REMOTE CONTROL MINI TRUGGY
GT-3840
P490

4 CHANNEL QUADCOPTER WITH FLIP CONTROL
GT-3820
P486

MINI ELECTRIC WET AND DRY SHAVER
GH-1521
P493

AUTOMATIC UPPER ARM BLOOD PRESSURE MONITOR
QM-7261
P493

4 CHANNEL SINGLE BLADE RC HELICOPTER WITH GYROSCOPE
GT-3810
P489

LUNABOTICS

SYDNEY LUNABOTICS*

Sydney Lunabotics is a team of 16 undergraduate students from the University of Sydney competing in NASA's 2013 Lunabotics Mining Competition. The competition has two parts - a lunar mining competition that takes place at the Kennedy Space Center in Florida, and an educational outreach program run by the team.

NASA's Lunabotics Lunar Mining Competition was first held in 2010 to encourage students to pursue education and careers in the fields of Science, Technology, Engineering and Mathematics (STEM). In the three years since its inception the Lunabotics competition has attracted entries from leading universities around the world. It has provided valuable learning opportunities to hundreds of tertiary students and provided a point of contact between schools, universities and NASA. This year, Australia joins the competition with Sydney Lunabotics.

The premise that the competition is based on is the challenge of designing, building, and operating a lunar-plausible excavation robot (known as a 'Lunabot'). This means that the challenge also serves the purpose of developing lunar mining techniques; technology that NASA and many others consider vital for the continued exploration of the moon and other extraterrestrial bodies. Teams must mine a minimum of 10kg of lunar soil simulant (called 'regolith') within the 10 minute time limit. The design of the Lunabot must fit within the limitations placed on weight, size and other parameters defined by the rules, which are based on actual mission constraints.

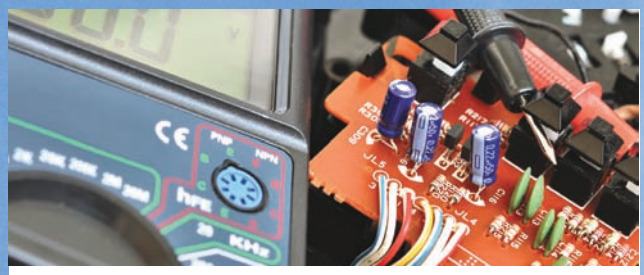
Lead systems engineer, Abhijeet Kumar, is excited about the potential of Sydney Lunabotics, exclaiming, "Australia has played an undeniable role in advancing both active and historical space technologies, I think the key to continuing this success is inspiring students and creating awareness amongst the community". His team mates reflect his enthusiasm, they are eager to demonstrate their love for space science and engineering to the community.

In achieving their goals and successfully developing a rover that is suitable for this competition as well as in order to physically ship the Lunabot to NASA and send team members to the competition Sydney Lunabotics is appealing to organisations with a keen interest in investing in STEM and experiential learning. Sydney Lunabotics are privileged and grateful to Jaycar for giving their support to Sydney Lunabotics and they look forward to involving the Jaycar community throughout the design and operations process.

You can follow the team and their developments at www.sydneylunabotics.com and on Facebook at www.facebook.com/sydneylunabotics.

*Due to space constraints we've had to shorten this article written by the Sydney Lunabotics Team. For full article see our website.

HARDCORE INDEX



SYDNEY LUNABOTICS

Jaycar is proud to be a major sponsor of the Sydney Lunabotics team in 2013. Good luck to the team on their quest!

RESULTS OF THE MAKERS COMPETITION

Many thanks to all those who participated and sent in their innovative and unique projects. Not all made it into the Jaycar catalogue - due to space constraints - you all deserve to be there. All projects, however, have been added to our websites. We've decided everyone who entered deserves a reward and your Gift Card is on the way.

There are a few exceptional projects which we think deserve special mention and an extra reward. All these details will be posted on our website before the end of March 2013.

Again our thanks for your participation. Happy building.

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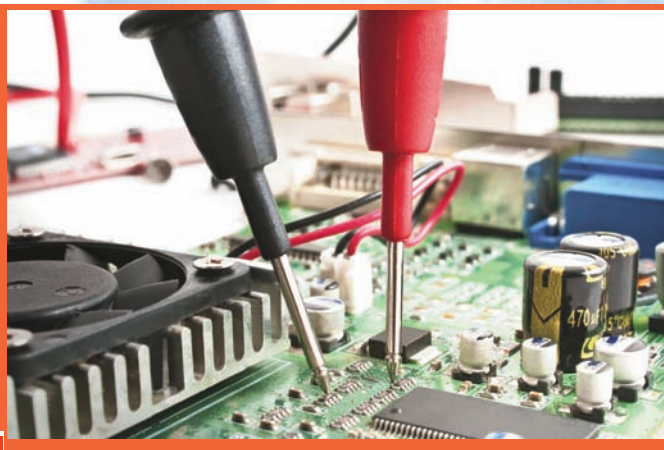
Test & Measurement

Our Test & Measurement section is traditionally one of the strongest in our catalogue. We amaze ourselves with the number of multimeters we sell every year, for example. Perhaps it's because we spend a massive amount of time evaluating the large number that become available every year. Or is it because we only select a new meter because it is so outstanding that it forces out an existing one?

The fact that we only have ONE new meter this year (the outstanding QM-1576 on page 17) underlines the fact that we do not make impulsive changes. Or is it the lifetime guarantee on most of our meters or the absolutely outstanding value for money? Oh, and check out some of the other new Test & Measurement products as well.

We are particularly proud of our Test Equipment range. Thank you for supporting us.



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TECH TIP

This logo indicates that the product has a lifetime guarantee. Why would you buy a multimeter from anyone else?

DIGITAL MULTIMETERS COMPARISON GUIDE

Cat	QM-1502	QM-1500	QM-1523	QM-1524	QM-1328	QM-1327	QM-1323	QM-1496	QM-1548	QM-1547	QM-1444	QM-1549	XC-5078	QM-1594	QM-1571	QM-1543	QM-1576 NEW	QM-1575	QM-1493
Display (Count)	2000	2000	2000	2000	4000	4000	4000	6000	2000	4000	4000	4000	2000	400	4000	40000	40000	40000	4000
Security Category	Cat II 500V	Cat II 500V	Cat II 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat III 600V	Cat IV 600V	Cat III 600V	Cat III 600V	Cat IV 600V	Cat IV 600V	Cat IV 600V	Cat IV 600V	Cat III 1000V
Backlight			•	•		•	•				•	•		•	•	•	•	•	•
Bargraph																•	•	•	•
Auto-range				•	•	•	•	•				•	•	•	•	•	•	•	
True RMS												•			•	•	•	•	
VDC	500V	1000V	500V	600V	600V	600V	600V	600V	1000V	600V	600V	1000V	600V	250V	1000V	1000V	1000V	1000V	1000V
VAC	500V	750V	500V	600V	600V	600V	600V	600V	750V	600V	600V	1000V	600V	250V	1000V	1000V	1000V	1000V	750V
ADC	10A	10A	10A	10A	200mA	10A	10A	10A	10A	10A	10A	10A	200mA	10A	10A	10A	10A	10A	
AAC				10A	200mA	10A	10A	10A	10A	10A	10A	10A	200mA	10A	10A	10A	10A	10A	
Resistance	2M	2M	2M	2M	40M	40M	40M	60M	200M	40M	40M	40M	20M	20M	40M	40M	40M	40M	400R
Capacitance					100uF	200uF	100µF	60000µF	200uF	100uF	100uF	200uF			200uF	40mF	40mF	40mF	
Frequency					10MHz	10MHz	10MHz			40kHz	10MHz	10MHz			10MHz	10MHz	10MHz	10MHz	
Inductance									20H										
Temperature						1000°C	760°C		1000°C		760°C				760°C	760°C	1200°C	1200°C	
Tachometer											•								
Duty Cycle					•	•	•				•	•			•			•	
Dwell											•								
Continuity			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Diode Test	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Transistor Test	•	•	•						•										
Interface															•		•	•	
Data Logger															•		•	•	
Relative Measurement					•		•				•	•		•	•	•	•	•	
Data Hold			•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•
Min / Max Hold													Max hold		•	•	•	•	
Non Contact Voltage							•							•	•				
IP67															•	•	•	•	
Low Battery	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•
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This colour pricebar denotes a Clearance item - check for specials.

DIGITAL MULTIMETERS

Mini DMM

- 2000 Count
- Transistor test
- Diode Test
- 10A DC current
- Ideal first meter
- Compact size

A fantastic little multimeter at a bargain price. Great for the hobbyist, student, or person who needs a cheap and quick way to check a few basic electronic measurements. Keep one in your car glove box or front shirt pocket. Test probes included.

Specifications	
Display	2000 count
Security Class	Cat II 500V
Basic DCV accuracy	0.5%
DC voltage	200mV, 2000mV, 20V, 200V, 500V (± 0.5%)
AC voltage	200V, 500V (± 1.2%)
DC current	200µA, 2000µA, 20mA, 200mA, 10A (± 1%)
AC current	-
Resistance	200R, 2k, 20k, 200k, 2M (± 0.8%)
Capacitance	-
Frequency	-
Temperature	-
Ave/RMS	Ave
Input impedance	-
Special features	Diode test, hFe
Dimensions	94(H) x 46(W) x 26(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1502	$4.95	$4.45	$3.90

Low Cost DMM

- 19 Range
- 2000 Count
- Transistor test
- Diode Test
- 10A DC current
- Ideal first meter
- Compact size

PERFECT FIRST METER
This is a full featured meter with plug-in 4mm probes AND transistor tester. This is the ideal first multimeter, and will give years of faithful service, in fact, you will only need to replace this meter if you require a unit with very high input impedance.

Specifications	
Display	2000 count
Security Class	Cat II 500V
Basic DCV accuracy	0.500%
DC voltage	200mV, 2V, 20V, 200V, 1000V (± 0.5%)
AC voltage	200V, 750V (Max input 750V RMS) (± 1.2%)
DC current	200uA, 2mA, 20mA, 200mA, 10A (± 1.2%)
AC current	-
Resistance	200R, 2k, 20k, 200k, 2M (± 1.2%)
Capacitance	-
Frequency	-
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	1M
Special features	Transistor test
Dimensions	125(H) x 68(W) x 23(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

2 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1500	$9.95	$8.75	$7.75

Data Hold DMM with Backlight

CAT II 600V

- 20 range
- 2000 Count
- Transistor test
- Diode test
- 10A DC current
- Data hold
- Backlight
- Low battery warning
- Continuity beeper
- Holster with stand

A handy digital multimeter with lots of features at a great price. Has all the features you would expect including holster and probes included. Excellent for those just learning about DMMs.

Specifications	
Display	2000 count
Security Class	Cat II 600V
Basic DCV accuracy	0.800%
DC voltage	200V, 500V (± 0.8%)
AC voltage	200uV, 2mV, 20mV, 200V, 500V (± 1.2%)
DC current	200uA, 2mA, 20mA, 200mA, 10A (± 1%)
AC current	-
Resistance	200R, 2k, 20k, 200k, 2M (± 1%)
Capacitance	-
Frequency	-
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	1M
Special features	Transistor test, data hold, backlight
Dimensions	145(H) x 65(W) x 35(H)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

2 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1523	$14.95	$13.35	$11.70

Multimeters

DIGITAL MULTIMETERS (CONTINUED)

Cat II Autoranging DMM

- CAT II 600V
- 2000 Count
- Data hold
- Back light
- Diode test
- Holster with stand & test probes

This CAT II DMM is suitable for voltages up to 600VAC and has 15mm high digits for easy reference.

Features include: Overload protection, 10A current, diode check.
Supplied with: Rubber holster, High quality leads

Specifications	
Display	2000 count
Security Class	Cat II 600V
Basic DCV accuracy	0.800%
DC voltage	200mV, 2V, 20V, 200V, 600V (±0.8%)
AC voltage	200uV, 2mV, 20mV, 200V, 600V (± 1%)
DC current	200uA, 2mA, 20mA, 200mA, 10A (± 3%)
AC current	200uA, 2mA, 20mA, 200mA, 10A (± 3%)
Resistance	200R, 2k, 20k, 200k, 2M (± 1.5%)
Capacitance	-
Frequency	-
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	10M
Special features	Data hold, backlight
Dimensions	140(H) x 70(W) x 31(H)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

2 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1524	$19.95	$17.70	$15.70

Analogue Multimeter

- Transistor test
- Holster included
- Audible continuity

Digital multimeters have almost completely taken over, but there are those who prefer to use the old analogue meter - it's still the best way to test a capacitor. This well-made meter has audible continuity and a transistor test, in addition to the normal set of functions. Have a closer look at this meter. It's a beauty, the picture on the right does not do it justice.

Specifications	
Display	-
Security Class	-
Basic DCV accuracy	3.000%
DC voltage	100mV, 500mV, 2.5V, 10V, 50V, 250V, 1000V (±3.0%)
AC voltage	10V, 50V, 250V, 1000V (±4.0%)
DC current	50uA, 2.5mA, 25mA, 250mA (±3.0%)
AC current	-
Resistance	2k, 20k, 200k, 2M, 20M (±3.0%)
Capacitance	-
Frequency	-
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	10M
Special features	dB, continuity buzzer.
Dimensions	150(L) x 100(W) x 35(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1020	$24.95	$22.35	$19.70

Autoranging Pocket DMM

- Autoranging
- Removable leads
- Auto power-off
- Data hold & relative function
- Capacitance
- Frequency
- Pocket sized

A handy little pocket DMM with plenty of features. Large LCD display with 4000 count, autoranging measurement with data hold and relative functions, and with replaceable leads make this a perfect companion to any technician, field engineer, mechanic, or even a handyman. Also does capacitance, frequency and duty cycle.

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	1.000%
DC voltage	400mV, 4V, 40V, 400V, 600V (±1.0%)
AC voltage	4V, 40V, 400V, 600V (±1.5%)
DC current	40mA, 200mA (±1.5%)
AC current	40mA, 200mA (±2.5%)
Resistance	400R, 4k, 40k, 400k, 4M, 40M (±1.0%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 100uF (±3.0%)
Frequency	up to 10MHz (±1.5%)
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	10M
Special features	Pocket size, removable leads, data hold, relative function
Dimensions	115(H) x 60(W) x 16(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1328	$29.95	$26.90	$23.70

DIGITAL MULTIMETERS (CONTINUED)

Cat III 4000 Count Autoranging DMM

An accurate and easy to use autoranging DMM. Just select the parameter you want to measure and the meter chooses the appropriate display range. Backlit display helps for measuring in dark places, whilst temperature, capacitance, data hold and auto power off round out the features.

- Autoranging
- Data hold
- Auto power-off
- Temperature
- Backlit display

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 600V (±0.5%)
AC voltage	4V, 40V, 400V, 600V (±0.5%)
DC current	400uA, 4mA, 40mA, 400mA (±1.0%), 10A (±3.0%)
AC current	400uA, 4mA, 40mA, 400mA, 10A (±1.0%),
Resistance	400R, 4k, 40k, 400k, 4M, 40M (±0.8%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 200uF (±3.0%)
Frequency	0.1Hz~10MHz (±0.5%)
Inductance	-
Temperature	-20°C to +1000°C (±3.0%)
Ave/RMS	Ave
Input impedance	10M
Special features	Temperature, frequency, backlight
Dimensions	150(H) x 70(W) x 50(D)mm

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1327	$34.95	$31.45	$27.90

Cat III DMM with Temperature

A budget-priced meter with everything you need - capacitance, temperature and 10A on AC and DC, compact and light weight with rugged moulded case.

- Non-contact voltage
- Duty cycle
- Backlight
- Rugged moulded case

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 600V (±0.5%)
AC voltage	400mV, 4V, 40V, 400V, 600V (±1.2%)
DC current	4mA, 40mA, 400mA, 10A (±2.5%)
AC current	4mA, 40mA, 400mA, 10A (±3%)
Resistance	400R, 4k, 40k, 400k, 40M (±0.8%)
Capacitance	4nF, 40nF, 4μF, 40μF, 100μF (±3%)
Frequency	4kHz, 40kHz, 400kHz, 4000kHz, 10MHz (±1.5%)
Inductance	-
Temperature	-20°C to +760°C (±3%)
Ave/RMS	Ave
Input impedance	10M
Special features	Non-contact voltage, duty cycle, backlight
Dimensions	138(H) x 68(W) x 37(D)mm

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

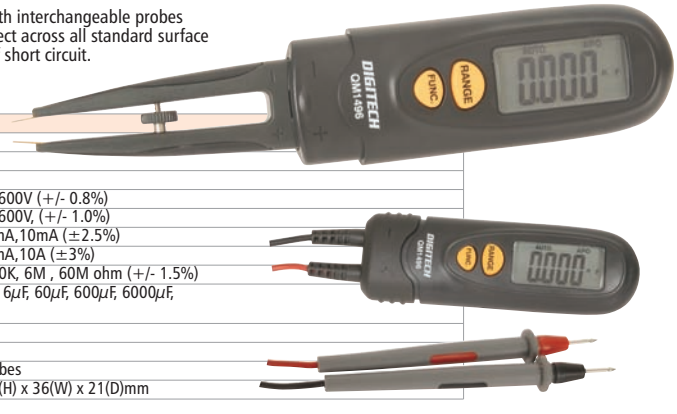
LIFETIME GUARANTEE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1323	$39.95	$35.90	$31.90

Autoranging SMT DMM

Specifically designed for SMT work with interchangeable probes and tweezer probes. Probes will connect across all standard surface mount components without danger of short circuit.

- Autoranging
- Continuity test
- Auto power-off



Specifications	
Display	6000 count
Security class	Cat III 600V
Basic DC accuracy	1.5%
DC voltage	600mV, 6V, 60V, 600V (+/- 0.8%)
AC voltage	600mV, 6V, 60V, 600V, (+/- 1.0%)
DC current	4mA,40mA,400mA,10mA (±2.5%)
AC current	4mA,40mA,400mA,10A (±3%)
Resistance	600, 6K, 60K, 600K, 6M , 60M ohm (+/- 1.5%)
Capacitance	6nF, 60nF, 600nF, 6μF, 60μF, 600μF, 6000μF, 60000μF (±3%)
Ave/RMS	Ave
Input impedance	10M
Special features	SMT tweezer probes
Dimensions	Dimensions: 110(H) x 36(W) x 21(D)mm

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

	Cat.	Qty 1+
	QM-1496	$39.95

TEST & MEASUREMENT

Multimeters

DIGITAL MULTIMETERS (CONTINUED)

Cat III Dynamo Powered DMM

- No batteries required
- Capacitance
- Frequency
- Data Hold
- 10A Current

Just crank the handle for 10 seconds to provide power for about 10 minutes operation. Ideal for electrical emergencies on the car or boat - the last thing you need to be thinking about is how old the battery in the multimeter is.

Specifications	
Display	4000 count
Security class	Cat III 600V
Basic DC accuracy	1.0%
DC voltage	400mV, 4V, 40V, 400V, 600V (±1%)
AC voltage	4V, 40V, 400V, 600V (±2.5%)
DC current	400µA, 4000µA, 40mA, 400mA, 4A, 10A (±3.5%)
AC current	400µA, 4000µA, 40mA, 400mA, 4A, 10A (±3.5%)
Resistance	400R, 4k, 40k, 400k, 4M, 40M (±3%)
Capacitance	40nF, 400nF, 4µF, 40µF, 100µF (±3%)
Frequency	4Hz, 40Hz, 400Hz, 4kHz, 40kHz (±0.3%)
Ave/RMS	Ave
Input impedance	10M
Special features	Data hold, diode and continuity test
Dimensions	152(L) x 78(W) x 45(D)mm

TECH TIP! NO BATTERIES REQUIRED

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+
QM-1547	$39.95

Cat III Inductance/ Capacitance DMM

- Hfe transistor test
- Inductance
- Capacitance
- Auto power-off
- 10A AC & DC current
- Diode test
- Audible continuity
- Data hold

A feature packed DMM with wide range of inductance and capacitance measurement which are measured via the standard probes. Ideal for audio enthusiasts designing their own crossovers. Features large LCD, auto power-off and temperature measurement.

Specifications	
Display	2000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	200mV, 2V, 20V, 200V, 1000V (±0.5%)
AC voltage	200mV, 2V, 20V, 200V, 750V (±0.5%)
DC current	20mA, 200mA (±1.0%), 10A (±2.0%)
AC current	2mA, 200mA (±1.0%), 10A (±3.0%)
Resistance	200R, 2K, 20K, 200K, 2M, 20M (±0.8%), 200M (±5.0%)
Capacitance	20nF, 200nF, 2uF, 200uF (±4.0%)
Frequency	-
Inductance	20mH, 200mH, 2H, 20H (±3.0%)
Temperature	-20°C to +1000°C (±3.0%)
Ave/RMS	Ave
Input impedance	10M
Special features	Hfe test, temperature, inductance
Dimensions	195(H) x 92(W) x 55(H)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1548	$49.95	$44.90	$39.90

Automotive DMM with Inductive Pickup

- RPM x1, x10
- Inductive pickup for RPM
- Dwell angle
- Resistance
- DC volts
- Temperature
- Frequency
- Duty cycle %
- Data hold and relative function
- Probes, alligator clip probes and holster included

A multimeter for all your automotive diagnostic needs. Features an inductive pickup for RPM measurement, dwell angle, frequency, duty cycle, data hold, relative function, backlit display and temperature, and works with engines of 2 to 10 cylinders. An absolute must have for the backyard mechanic or qualified tradesperson alike.

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	1.500%
DC voltage	400mV, 4V, 40V, 400V, 600V (±1.5%)
AC voltage	4V, 40V, 400V, 600V (±1.5%)
DC current	400uA, 4mA, 40mA, 400mA (±1.5%), 4A, 10A (±2.5%)
AC current	400uA, 4mA, 40mA, 400mA (±1.8%), 4A, 10A (±3.0%)
Resistance	400R, 4k, 40k, 400k, 4M, 40M (±1.2%)
Capacitance	40nF, 400nF, 4uF, 40uF, 100uF (±3.0%)
Frequency	5Hz~10MHz (±1.2%)
Inductance	-
Temperature	-20°C to +760°C (±3.0%)
Ave/RMS	Ave
Input impedance	10M
Special features	Inductive pickup, Dwell, RPM, duty cycle
Dimensions	146(H) x 66(W) x 42(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1444	$59.95	$56.50	$47.90

DIGITAL MULTIMETERS (CONTINUED)

IP67 True RMS Autoranging Cat IV DMM

- IP67 waterproof
- True RMS
- Auto power-off
- Backlight
- Data hold & relative function
- Diode test
- Autoranging
- Audible continuity
- 10A current range
- Double moulded case

This is an excellent true RMS multimeter that features a large, easily read display and carries an IP67 environmental rating. This means the multimeter is waterproof and will not be damaged if accidentally dropped into water or left out in the rain. The meter has data should and relative measurement capabilities and is housed in a robust, double moulded case. Includes leads, soft carry case and user manual.

Specifications	
Display	4000 count
Security Class	Cat IV 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 1000V (±0.5%)
AC voltage	400mV, 4V, 40V, 400V, 1000V (±0.8%)
DC current	4mA, 40mA, 400mA, 10A (±1.2%)
AC current	4mA, 40mA, 400mA, 10A (±1.8%)
Resistance	400R, 4k, 40k, 400k, 40M (±0.8%)
Capacitance	4nF, 40nF, 4μF, 40μF, 200uF(±3%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz 10MHz (±1.5%)
Inductance	-
Temperature	-
Ave/RMS	True RMS
Input impedance	10M
Special features	IP67, data-hold, relative measurement, backlight
Dimensions	182(L) x 82(W) x 55(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1549	$79.95	$74.95	$63.95

DMM with Network Cable Tester

- Autoranging
- LAN Cable Tester
- Diode Test
- Multimeter functions
- Audible continuity
- Case included
- LAN tester checks faults & miss wired conductors
- Manual or automatic testing

This innovative device is ideal for network installers or technicians & will allow the user to easily check cable integrity or measure AC & DC voltage, current, resistance, & continuity etc. without needing to carry two separate devices. The unit will check for cable continuity, open-circuits, short-circuits, & cross-connects etc. A remote terminator is included and enables the user to check network cables at a wall jack or patch panel. Supplied with loop back cable, LAN terminator, and multimeter leads.

Specifications	
Display	2000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	200mV, 2V, 20V, 200V, 600V (±0.5%)
AC voltage	200mV, 2V, 20V, 200V, 600V (±1.2%)
DC current	2mA, 20mA, 200mA (±1.5%)
AC current	2mA, 20mA, 200mA (±2.0%)
Resistance	200R, 2k, 20k, 200k, 20M (±0.8%)
Capacitance	-
Frequency	-
Inductance	-
Temperature	-
Ave/RMS	Ave
Input impedance	10M
Special features	Data hold, max hold
Dimensions	162(L) x 74.5(W) x 44(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5078	$79.95	$71.95	$63.95

Multifunction Environment Meter with DMM

- Sound level meter
- Light level meter
- Indoor temperature and humidity measurement
- Non contact voltage

A multi-function environment meter that combines the functions of a sound level meter, light meter, humidity meter and temperature meter. Typical sound applications include checking acoustics of recording studios, auditoriums and professional hi-fi installations. The light and humidity meters are ideal for video photographers, greenhouse and hydroponic setups, etc. Others who should find this meter essential include interior designers, factory and office managers, record and archive keepers, schools, hospitals, laboratories and, of course, universities.

Specifications:	
Display	4000 count
Security class	CATIII 300V
Basic DCV accuracy	1%
DC voltage	400mV, 4V, 40V, 100V, 250V (±1%)
AC voltage	400mV, 4V, 40V, 100V, 250V (±1%)
DC current	400μA, 4mA, 40mA, 400mA, 10A (±1%)
AC current	400μA, 4mA, 40mA, 400mA, 10A (±1.2%)
Resistance	400R, 4k, 40k, 400k, 4M, 40M (±1.5%)
Capacitance	50nF, 500nF, 5μF, 50μF, 100μF (±3%)
Frequency	5Hz, 50Hz, 500Hz, 5kHz, 500kHz, 10MHz (±1.2%)
Temperature	-20°C to 750°C (±1.2%)
Ave/RMS	Ave
Input impedance	10M
Special features	LUX, SPL, Humidity
Dimensions	170(H) x 78(W) x 48(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1594	$99.00	$92.95	$78.95

Multimeters

DIGITAL MULTIMETERS (CONTINUED)

IP67 True RMS Autoranging Cat IV DMM with Wireless USB

- IP67 waterproof
- True RMS
- Wireless USB interface
- PC logging software
- Auto power-off
- Backlight
- Non-contact voltage
- Data hold
- Diode test
- Autoranging
- Audible continuity
- 10A current range
- Double moulded case

A quality true RMS multimeter with a wireless USB computer interface, non-contact voltage indicator, relative zero and data hold. Double moulded housing is impact resistant and quite durable, and IP67 waterproof rating makes this DMM capable of even the harshest conditions. Wireless USB interface and included logging software allow for computer based live data logging whilst keeping your computer completely isolated and protected.

Specifications	
Display	4000 count
Security Class	Cat IV 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 1000V (±0.5%)
AC voltage	400mV, 4V, 40V, 400V, 1000V (±0.8%)
DC current	4mA, 40mA, 400mA, 10A (±1.2%)
AC current	4mA, 40mA, 400mA, 10A (±1.8%)
Resistance	400R, 4k, 40k, 400k, 40M (±0.8%)
Capacitance	4nF, 40nF, 4µF, 40µF, 100uF(±3%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (±1.5%)
Inductance	-
Temperature	-20°C to +760°C (±3.0%)
Ave/RMS	True RMS
Input impedance	10M
Special features	Wireless USB, IP67, True RMS, non-contact voltage
Dimensions	170(L) x 79(W) x 50(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1571	$109.00	$102.95	$86.95

IP67 True RMS Cat IV DMM 40,000 Count

- IP67 rated
- Auto power-off
- Backlight
- Data hold
- Diode test
- Autoranging
- Audible continuity
- Relative measurement
- Double moulded case

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

This rugged meter is designed for professional use and will provide many years of reliable service. It measures up to 1,000 volts AC & DC and is rated to CAT IV 600. The meter includes temperature and capacitance ranges, as well as peak-hold and min/max options. It is water and dust-proof (IP67) and features a double moulded case that will easily withstand a 2m fall. Includes K-type thermocouple.

Specifications	
Display	40,000 count
Security Class	Cat IV 600V
Basic DCV accuracy	0.060%
DC voltage	400mV, 4V, 40V, 400V, 1000V (±0.06%)
AC voltage	400mV, 4V, 40V, 400V, 1000V (±1.0%)
DC current	400uA, 4mA, 40mA, 400mA, 10A (±1%)
AC current	400uA, 4mA, 40mA, 400mA, 10A (±1.5%)
Resistance	400R, 4k, 40k, 400k, 40M (±0.3%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 400uF, 4mF, 40mF (±3.5%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (±0.1%)
Inductance	-
Temperature	-20°C to +760°C (±1%)
Ave/RMS	TrueRMS
Input impedance	10M
Special features	Backlight, data hold, peak hold, min / max hold, relative measurement, bargraph, IP67
Dimensions	182(L) x 82(W) x 55(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1543	$149.00	$139.95	$118.95

IP67 True RMS Cat IV DMM with Wireless USB & Storage

- IP 67 waterproof
- True RMS
- Wireless USB PC interface
- PC logging software
- Data log storage
- 9999 measurement storage
- Triple LCD with bargraph
- Backlight / Auto power-off
- Data hold/Min/Max recording
- Relative measurement
- Diode test
- Autoranging
- Audible continuity
- 10A current range
- Double moulded case

NEW LOWER PRICE

A serious multimeter for the serious user. Double moulded case for impact resistance and IP67 waterproof protection. Data storage capability allows this meter to be used as a data logger, which can then be connected to a PC via wireless USB interface keeping the PC completely isolated from whatever is being measured. Triple LCD backlit screen with bargraph displays all measurements clearly under all conditions. Also features data hold with min/max recording, 4-20mA process loop measurements with % reading, a wide capacitance range and many more features. A truly fantastic multimeter designed to last you several years out in the field.

Specifications	
Display	40,000 count (0.01mV, 0.01uA, 0.01R)
Security Class	Cat IV 600V
Basic DCV accuracy	0.060%
DC voltage	400mV, 4V, 40V, 400V, 1000V (±0.06%)
AC voltage	400mV, 4V, 40V, 400V, 1000V (±1.0%)
DC current	400uA, 4mA, 40mA, 400mA, 10A (±1%)
AC current	400uA, 4mA, 40mA, 400mA, 10A (±1.5%)
Resistance	400R, 4k, 40k, 400k, 40M (±0.3%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 400uF, 4mF, 40mF (±3.5%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (±0.1%)
Inductance	-
Temperature	-20°C to +1200°C (±1%)
Ave/RMS	TrueRMS
Input impedance	10M
Special features	Wireless USB, datalogging, IP67, bargraph, data hold/storage, triple LCD display
Dimensions	182(L) x 82(W) x 55(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1575	$179.00	$160.95	$142.95

DIGITAL MULTIMETERS (CONTINUED)

Cat III Insulation Tester/Multimeter

Commonly known as a megger and suitable for high voltage insulation testing up to 4 gigaohms at up to 1000V. It also has AC/DC voltage and low resistance multimeter functions. Moulded storage case and holster included.

- Analogue/digital display
- Data hold
- Max/min
- Moulded case
- Backlit LCD
- Auto power-off

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

Specifications	
Display	4000 count
Security class	Cat III 1000V
Basic DC accuracy	0.8%
DC voltage	1000V (±0.8%)
AC voltage	750V (±1.2%)
Resistance	40R, 400R (±1.5%)
Insulation resistance	4M, 40M, 400M, 4000M (±2.0%)
Test voltages	125V, 250V, 500V, 1000V @ 1mA nominal
Ave/RMS	Ave
Special features	Dual display, bargraph, backlight, test hold & lock function
Dimensions	200(L) x 92(W) x 50(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1493	$199.00	$186.95	$158.95

IP 67 True RMS Cat IV DMM with Meterbox Smartphone App

NEW 2013

Meterbox app available on Google Play and iTunes®.

A multimeter with all the bells and whistles you would expect from our flagship multimeter, but it's so much more than that. With an in-built Bluetooth® module, this DMM can connect to your Smartphone, and using the free Meterbox app you can do everything you would expect to be able to do with a PC, and more. Stop carrying a laptop to job sites, all you need is this multimeter and the phone you already had in your pocket! View live measurements, trend graphs, data log, email your results and upload them to the could for your colleagues to review - all from your Smartphone! Of course, it still has all the other top notch features like a double moulded case for impact resistance and IP67 waterproof protection, internal data storage capability, data hold with min/max recording, wide capacitance range, and much more. For easy reading, a triple LCD backlit screen with bargraph displays all measurements clearly under all conditions.

A truly fantastic and ground breaking multimeter design.

- IP 67 waterproof
- True RMS
- Bluetooth® Smartphone/PC interface
- Meterbox Smartphone app
- Data log storage
- 9999 measurement storage
- Triple LCD with bargraph
- Backlight
- Auto power-off
- Data hold/Min/Max recording
- Relative measurement
- Diode test
- Autoranging
- Audible continuity
- 10A current range
- Double moulded case

Specifications:	
Display	40,000 count (0.01mV, 0.01uA, 0.01R)
Security Class	Cat IV 600V
Basic DCV accuracy	0.060%
DC voltage	400mV, 4V, 40V,400V,1000V (+- 0.06%)
AC voltage	400mV, 4V, 40V, 400V, 1000V (+- 1.0%)
DC current	400uA, 4mA, 40mA, 400mA, 10A (+-1%)
AC current	400uA, 4mA,40mA,400mA, 10A (+-1.5%)
Resistance	400R, 4K, 40K, 400K, 40M (+-0.3%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 400uF, 4mF, 40mF (+-3.5%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (+-0.1%)
Inductance	
Temperature	-20 degrees Celsius to +1200 degrees Celsius (+- 1%)
Ave/RMS	TrueRMS
Input impedance	10M
Special features	Bluetooth®, Meterbox Smartphone app, data logging, IP67, bargraph, data hold/storage, triple LCD display
Dimensions	182(L) x 82(W) x 55(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1576	$219.00	$196.95	$174.95

Professional Cat IV Multimeter Probes

Professional multimeter test probes have always been an expensive choice so what we've done is work closely with a manufacturer to get great quality probes at a genuinely affordable price! There is no longer a need to settle for second best with your multimeter probes, especially if you have them in your hand almost every day.

To start with, we've made them extra long; they're 1200mm long so you don't drag your meter across your workbench as you move around a circuit and makes them perfect for bench top meters. They're Cat IV rated for safety, feature finger guards and can handle 20A of current. The best part is the actual probes themselves. To start with, the probes are suitable for inserting into a standard 4mm banana socket using the same spring hold system. Also included are probe covers which not only stop the sharp points being dangerous, they allow only just the tip to be exposed for delicate work where you can be in danger of making a short between two connections which are close together.

- Extra long 1200mm
- 600V Cat IV rated
- 20A current rating

Probes suitable for inserting (and holding) in 4mm banana sockets. Probe safety cover with slot for delicate work. Comfortable and ergonomic grip.

Sold as a pair.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Pair	WT-5338	$17.95	$15.95	$14.35

Clamp Meters & Accessories

MULTIMETER ACCESSORIES

Magnetic DMM Strap

Keep your DMM handy and stash a few fasteners while you're working. Ideal for working up ladders or anywhere you need an extra pair of hands and the missus is indisposed.

- Suits most multimeters with a screw hanging type holster

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1515	$5.95	$5.25	$4.75

Multimeter Carry Case

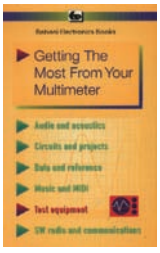
Hard wearing and good looks make this multimeter case perfect for protecting your valuable multimeter from harm. With foam lining to cushion the meter, it zips up tight guarding it from dirty, dusty conditions.

- Dimensions: 190(L) x 125(W) x 45(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
HB-6361	$6.95	$6.25	$5.50

Getting The Most From Your Multimeter

Primarily aimed at beginners and those with a limited knowledge of electronics. Chapter 1 covers the basics of analogue & digital multimeters. In chapter 2 various methods of component checking are described, including tests for transistors, thyristors, resistors, capacitors and diodes. Circuit testing is covered in chapter 3, as well as voltage, current and continuity checks.



- Softcover, 102 pages
- Dimensions: 110(W) x 178(H)mm

Cat.	Qty 1+
BB-7034	$17.95

BOOK AVAILABLE

Fast Acting Cartridge Fuses

FOR USE IN MULTIMETERS

FLUKE

Used in many well-known multimeters including Listed by Underwriters Laboratories and certified by CSA. Fast acting fuse designed for use in circuits with high AC fault current capacity.

600V 15A (SUITS FLUKE) Cat. SF-2274
600V 1A (SUITS FLUKE) Cat. SF-2276

Spare ferrule fuses for our IP67 CAT IV rated DMMs:
1000V 10A Cat. SF-2277
1000V 500MA Cat. SF-2278
1000V 800MA Cat. SF-2279

Size (mm)			Cat.	Qty 1+	Qty 3+	Qty 6+
32 x 6.3	0.5A	1000V	SF-2278	$9.95	$8.75	$7.75
32 x 6.3	0.8A	1000V	SF-2279	$9.95	$8.75	$7.75
35 x 10	1A	600V	SF-2276	$8.95	$7.95	$6.95
38 x 10	15A	600V	SF-2274	$17.95	$15.95	$14.35
38 x 10	10A	1000V	SF-2277	$14.95	$13.35	$11.70

CLAMPMETERS

AC Clampmeter for DMMs

- AC current up to 300A
- Moulded hand guard for safety
- 3m extended curly cord
- 4mm banana plugs
- High quality ABS construction

This rugged adaptor plugs into your digital multimeter to allow high current AC measurement up to 300amps. This figure is dependent, however, on you multimeter's low AC voltage range, as the adaptor produces 1mV per every 0.1 amps measured, allowing a maximum of 200amps on a 2V DMM range or 300amps on a 4V DMM range. If you have a 2,000 count DMM with a 2V range you could of course, switch to the next range on your DMM (200V) although accuracy would suffer somewhat. The adaptor features a moulded hand guard for increased safety, 3 metre extended curly cord plus shrouded 4mm banana plugs and a high quality ABS construction.

NEW LOWER PRICE

Specifications	
Current Range	0.1A to 300A AC RMS (3V scale)
Output Voltage	1mV AC per 0.1amp AC
Working Voltage	600V
Max Jaw Opening	30mm
Dimensions	156(L) x 80(W) x 35(D)mm
Weight	220g

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1565	$19.95	$17.70	$15.70

400A AC Clampmeter

- Autoranging
- Relative mode
- Diode test
- Audible continuity
- Data hold
- Auto power-off
- Jaw opening 30mm
- Temperature probe
- Carrying case

Our entry-level clampmeter. It has most of the features of the bigger models, such as data hold and auto power-off, but with only AC current measuring capability.

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 600V (±0.5%)
AC voltage	400mV, 4V, 40V, 400V, 600V (±1.5%)
DC current	-
AC current	40A, 400A (±2.5%)
Resistance	4k, 40k, 400k, 4M, 40M (±3.0%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 100uF (±2.5%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (±1.2%)
Inductance	-
Temperature	-20°C to +1000°C (±3%)
Ave/RMS	Ave
Input impedance	10M
Special features	Data hold, non-contact voltage, relative measurement
Dimensions	198(L) x 66(W) x 36(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

LIFETIME GUARANTEE

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1561	$59.95	$53.95	$47.90

CLAMPMETERS (CONTINUED)

400A AC/DC Clampmeter

- Autoranging
- Relative mode
- Diode test
- Audible continuity
- Data hold
- Auto power-off
- Jaw opening 30mm
- Temperature probe
- Carrying case

Easy one-hand operation makes this meter perfect for the working installer or tradesman. This is a quality, intermediate-level clampmeter with more than useful current ranges up to 400 amps AC and DC.

Specifications	
Display	4000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	400mV, 4V, 40V, 400V, 600V (±0.5%)
AC voltage	400mV, 4V, 40V, 400V, 600V (±1.5%)
DC current	40A, 400A (±2.0%)
AC current	40A, 400A (±2.5%)
Resistance	4k, 40k, 400k, 4M, 40M (±3.0%)
Capacitance	4nF, 40nF, 400nF, 4uF, 40uF, 100uF (±2.5%)
Frequency	4kHz, 40kHz, 400kHz, 4MHz, 10MHz (±1.2%)
Inductance	-
Temperature	-20°C to +1000°C (±3%)
Ave/RMS	Ave
Input impedance	10M
Special features	Data hold, non-contact voltage, relative measurement
Dimensions	198(L) x 66(W) x 36(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1563	$119.00	$106.95	$94.95

1000A True RMS AC/DC Clampmeter

- Autoranging
- Relative mode
- Diode test
- Audible continuity
- Data hold
- Min/max mode
- Auto power-off
- Jaw opening 40mm
- Temperature probe
- Carrying case

Ideal for electrical fitters and contractors working with high currents, this meter will read up to 1000A AC or DC. It has every feature you'll ever need in your trade.

Specifications	
Display	6000 count
Security Class	Cat III 600V
Basic DCV accuracy	0.500%
DC voltage	600mV, 6V, 60V, 600V (±0.5%)
AC voltage	600mV, 6V, 60V, 600V (±1.5%)
DC current	600A, 1000A (±2.0%)
AC current	600A, 1000A (±2.5%)
Resistance	6k, 60k, 600k, 6M, 40M (±3.0%)
Capacitance	6nF, 60nF, 600nF, 6uF, 60uF, 100uF (±2.5%)
Frequency	6kHz, 60kHz, 600kHz, 6MHz, 10MHz (±1.2%)
Inductance	-
Temperature	-20°C to +1000°C (±3%)
Ave/RMS	TrueRMS
Input impedance	10M
Special features	Backlight, non-contact voltage, data hold, min-max, relative measurement, bargraph
Dimensions	230(L) x 76(W) x 40(D)mm

TECH TIP! ALL METERS INCLUDE QUALITY TEST LEADS

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1566	$139.00	$124.95	$110.95

TEST LEADS

Parrot™ Clip Leads

The Parrot™ Clip is the only test probe that provides both clip-on hands free contact as with an EZ-hook and normal point contact like a test probe. These feature a sprung hook, which is soldered directly to the lead and housed inside a round metal tube. The grip is performed between the 2 metal parts, which can be used as pincers if required. Probes are supplied with 1m leads terminated to banana plugs and are fully insulated to 1000V.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5330	$24.95	$22.35	$19.70

16 Piece Test Lead Set

Consists of two leads with screw sockets on each end. Attachments screw in. All colour coded red and black.

- 4 x alligator clips
- 4 x 2mm pin tips
- 4 x banana plugs
- 2 x spade lugs

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5218	$9.95	$8.75	$7.75

Multimeter Probe Alligator Clips

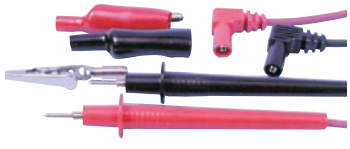
Turn your DMM probes into clips!

- These alligator clips simply push onto the end of the test probes
- Length approximately 55mm
- Jaw opening 8mm
- Sold as a pair - 1 red, 1 black

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5220	$3.95	$3.45	$3.15

Multimeter Test Probes Shrouded Type

- Banana plugs are right angle with 15mm covered pin.
- Alligator clips included



	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5325	$13.95	$12.35	$10.95

Meter Accessories

TEST LEADS (CONTINUED)

2mm Test Probes for Multimeters

- Sold as a pair

	Cat.	Qty 1+	Qty 3+	Qty 6+
Black/Red	PP-0425	$3.75	$3.30	$2.95

High Quality Banana Piggyback Test Leads

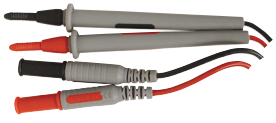
A set of factory-moulded piggy-back style banana plugs, each connected by one metre of high-quality, ultra-flexible 500VDC, 12A rated cable.

- Contains 2 x black, 2 x red and 1 each of blue, yellow and green leads - 7 in all.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5326	$24.95	$22.35	$19.70

CAT IV Test Lead Set

CAT IV Test Lead Set with straight banana plugs.



	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5333	$11.95	$10.70	$9.50

Multimeter Test Probes

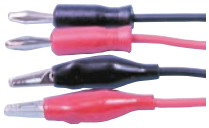
With 4mm right angle unshrouded banana plugs.

- Length 930mm
- Suits QM-1500, etc

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5316	$4.95	$4.45	$3.90

Test Leads

Banana plugs to clip. There are many situations where multimeter probes are difficult to use.



- Length: 700mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5320	$5.95	$5.25	$4.75

Jumper Lead Kits

STANDARD

Ideal for connecting devices for testing. Alligator clip size is approx 40mm, jaw opening is about 8mm and cable length is approx 400mm.

- 10 leads supplied 2 of each colour.

HEAVY DUTY

This kit has large alligator clips and heavy cable. The alligator clips are approximately 50mm long, and have jaw openings of about 10mm. Cable length is approx 300mm.

- 10 leads supplied, 2 of each colour.

HEAVY DUTY	Qty 1+	Qty 10+	Qty 50+
WC-6020	$11.95	$10.70	$9.50
STANDARD			
WC-6010	$6.95	$6.25	$5.35

Retractable 3m Alligator Test Lead Set

Set of 3 heavy duty leads in red, black, and green terminated with insulated alligator clips in a handy retractable reel. 3m in length, it is ideal for testing and troubleshooting electronic systems by connecting from components in machinery to test equipment or bypassing long wiring to isolate a fault.

- Rating when wound: 6A
- Rating when unwound: 10A
- Lead Length: 3m
- Reel Dimensions: 152(Dia) x 20(W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WT-5334	$14.95	$13.35	$11.70

SMD DMM Test Leads

Designed for measuring SMD components in-circuit. This lead set has standard 4mm banana plugs to fit any DMM. These tweezer style probes allow easy one-handed operation.

- Gold plated tips
- Lead length: 1m

CRAZY CLEARANCE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WT-5302	$8.95	$7.95	$6.95

EZ Hook Test Clips - 40mm

Suitable for ICs, transistors, PC pins, etc. Push syringe action. Hirshmann style.

	Cat.	Qty 1+	Qty 10+	Qty 50+
Red	HM-3036	$1.75	$1.55	$1.40
Black	HM-3037	$1.75	$1.55	$1.40

IC Test Clips

These have a syringe action and are ideal for working with small components. Length 57mm.

	Cat.	Qty 1+	Qty 10+	Qty 50+
Red	HM-3040	$1.95	$1.75	$1.55
Black	HM-3041	$1.95	$1.75	$1.55

Large Test Hooks

These test hooks are quality. They are rated at 1000V, and have a banana socket in the handle. They will even accept the new insulated banana plugs. Attached to the handle is an 80mm length of flexible spring, encased in heatshrink material which will allow you to use the hook to attach to parts for testing in really tight places. Total length is 190mm.

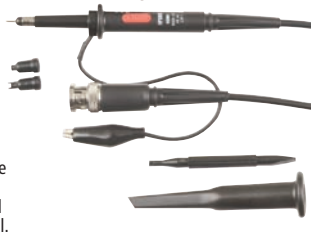
CRAZY CLEARANCE

	Cat.	Qty 1+
Red	HM-3044	$4.95
Black	HM-3045	$4.95

OSCILLOSCOPE PROBES

CRO Probe - 10 :1 / 1:1

Passive high impedance oscilloscope probe designed and calibrated for use with instruments having an input impedance of 1M-Ω shunted by 20pF. It may be compensated for use with instruments having an input capacitance of 15 to 35pF. The probe incorporates a three-position slide switch in the head, which selects attenuation of x1, x10 or a ground reference position. This probe suits all of the oscilloscopes in our range. Supplied with sprung hook, channel identifier clip, ground lead, insulating tip, IC tip and adjusting tool.



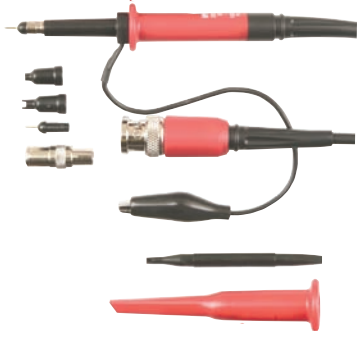
Specifications	Position x10	Position x1
Attenuation ratio	10:1	1:1
Bandwidth	DC to 60MHz	DC to 6MHz
Rise time	5.8nS	5.8nS
Input resistance	10MΩ when used with oscilloscopes with 1MΩ input	1MΩ (oscilloscope input resistance)
Input capacitance	23pF (approx.)	128pF plus oscilloscope capacitance
Compensation range	15 to 35pF	15 to 35 pF
Working voltage	600VDC incl. Peak AC derating with frequency	600V DC incl. Peak AC derating with frequency.
		Cable: 1.4m
		Safety Meets IEC1010-1 CAT.I

POSITION REF
Probe tip grounded via 9M-Ω resistor, oscilloscope input grounded.

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QC-1902	$39.95	$35.90	$31.90

CRO Probe - 100:1

Low input capacitance high voltage oscilloscope probe designed and calibrated for use with instruments having an input impedance of 1MΩ shunted by 10pF. It may be compensated for use with instruments having an input capacitance of 15 to 35pF.



- Suits all of the oscilloscopes in our range
- Supplied with sprung hook, channel identifier clip, ground lead, insulating tip, IC tip, measuring tip, BNC adaptor, and adjusting tool

Specifications	
Attenuation ratio	100:1
Rise time	1.4nS
Compensation range	10 to 35pF
Input resistance	100M-Ω when used with oscilloscopes with 1M-Ω input
Working voltage	1200VDC incl. peak AC de-rating with frequency
Cable length	1.2m
Bandwidth	DC to 250MHz
Input capacitance	5.5pF (approx.)
Safety	Meets IEC1010-1 CAT.II

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QC-1903	$59.95	$53.95	$47.90

DIGITAL STORAGE OSCILLOSCOPES

Consign your CRO to the dustbin of history where it belongs and go digital. Once they were so expensive only professionals could justify buying them, they're now within the reach of anyone in the market for a dual trace scope. The advantages of a DSO gives you capabilities that simply aren't possible with any analogue

- Full 64k colour TFT display
- Compact size much smaller than an equivalent analogue CRO
- Fully portable design
- Storage memory
- USB interface
- Multiple trigger modes
- Digital filters

Your DSO can also serve as a benchtop multimeter or frequency counter. It even has an FFT function for viewing frequency domain data. Quality 10:1 probes, EasyScope software and USB cable are also included.

Two models:

25MHZ DUAL CHANNEL WITH 5.7" SCREEN

Ideal entry-level DSO for the advanced hobby user or technician and is particularly suited to audio work. Full data storage capabilities and USB interface so you can store traces on a flash drive. Memory depth 32k
Cat. QC-1932

100MHZ DUAL CHANNEL WITH 7" SCREEN

Enhanced performance, professional level test instrument for the technician, design engineer or development laboratory. Full 100MHz bandwidth to keep up with the current digital chip technology, plus a host of features that make it a cost-effective addition or upgrade to your current test equipment. Big 7" wide screen, smaller, lighter more portable and with a host of extra features, and it even includes a tough padded nylon carry bag.

- Digital filter function and waveform recorder function
- Pass/fail function
- Two groups of reference waveforms and 20 groups of capture waveforms
- Channel waveform and its FFT waveform on split screen
- PictBridge compatible
- Memory depth up to 2Mpts
- Armed with waveform record function. Max. 6M record data, Max. 33.3 record hours
- New trigger types, including Edge, Pulse, Video, Slope, Alternative
- Larger measurement range, Max.10V/div
- Lighter, smaller design
- Screen-saver enables less power-consuming, prolong product lifetime
- Double windows display enlarged waveform and original waveform simultaneously
- Multi-interfaces, enable to use GPIB function with our USB-GPIB

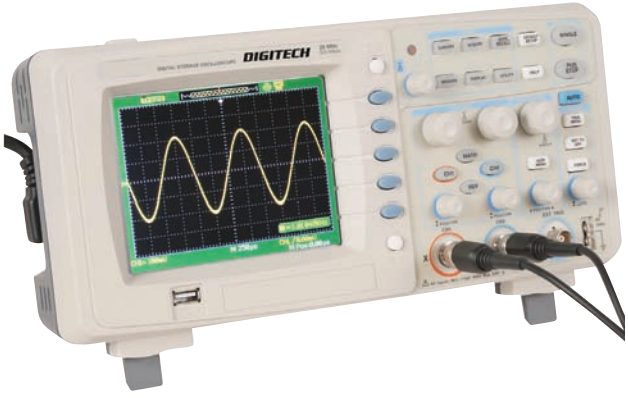
Cat. QC-1934

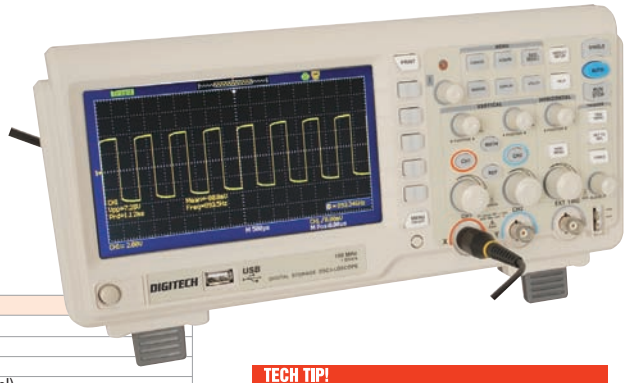
oscilloscope, including trace capture, screen capture, PC interface, storage of data on portable media, on-screen menus, mathematical functions etc. The list of features just goes on and on, suffice to say that a DSO is literally chalk and cheese when compared to an old CRO.

- Multi parameter auto measure function
- Split screen display
- On-screen menus
- Multiple language interface

1 YEAR WARRANTY

NEW LOWER PRICE





Specifications	QC-1932	QC-1934
Channels	2	2
Input impedance	1Mohm	1Mohm
Bandwidth	25MHz	100MHz
Sampling rate	500MSa/S	1GSa/Sec (Per channel)
Input coupling	AC, DC, GND	AC, DC, GND
Max input voltage	400V P-P, Cat II	400V DC+AC P-P, Cat II
Triggers	Edge, pulse, video, slope, alt, delay	Edge, pulse, width, video, slope, alt, delay
Trigger modes	Auto, normal, single	Auto, normal, single
Mathematical operations	Add, subtract, multiply, divide, invert	Add, subtract, multiply, divide, FFT
Display modes		Main, window, window zoom, scan, X-Y
DC Accuracy	±3%	± 3%
Data Record Function	Yes	Yes
Memory Depth	32K	2mpts
Display		
Type	Colour TFT LCD 145mm	Colour TFT LCD 178mm
Resolution	320 x 234 pixels	480 x 234 pixels
Colour	64k	64k
Contrast	150 to 1	150 to 1
Graticule	8 x 12 div.	8 x 18 div.
Vertical		
Vertical sensitivity	2mV - 10V/div	2mV - 5V/div
Vertical resolution	8 bit	8 bit
Rise time	<14ns	<3.5ns at 100MHz
Mathematical operations	Add, subtract, multiply, divide, FFT	Add, subtract, multiply, divide, FFT
FFT	Hanning, Hamming, Blackman, Rectangular	Window mode: Hanning, Hamming, Blackman, Rectangular Sampling points: 1024
Horizontal		
Range	25ns - 50s/div	2.5ns - 50s/div
Accuracy	±50ppm over 1ms	±50ppm over 1ms
Other		
Dimensions	310(W) x 150(H) x 130(D)mm	340(W) x 150(H) x 110(D)mm
Weight	2.4kg	2.4kg
Accessories	2 x 10:1 probes, EasyScope software, USB cable	2 x 10:1 probes, EasyScope 3.0 software, USB cable

NEW LOWER PRICE

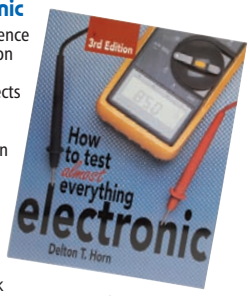
NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 5+
25MHz	QC-1932	$499.00	$449.00	$399.00
100MHz	QC-1934	$899.00	$809.00	$719.00

TECH TIP!

Both models include quality probes, EasyScope software & a USB cable. The QC-1934 even comes with a carry bag.

How to Test Almost Everything Electronic



Electronics is a unique science - everything that's going on has to be deduced from visible symptoms and effects with very little that is actually physically observable. We depend on test equipment to tell us what's really going on, and using test equipment is an essential skill in electronics. The book covers everything from setting up a test and work area to using the most important types of test equipment - multimeters, oscilloscopes, signal generators, signal tracers, capacitance meters and frequency counters. It also covers testing and measurement methods, fault finding without circuit diagrams, component testing and some highly specialised measurement in applications such as audio and TV.A comprehensive volume that should be on every technical bookshelf.

- Softcover 326 pages. 190 x 130mm

BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7200	$42.95

Oscilloscopes, Scopes & Frequency Counter

HANDHELD OSCILLOSCOPES

10MHz Velleman Rechargeable Handheld Pocket Scope

A vital piece of test equipment for hobbyists, students, technicians, or designers, the Velleman HPS140 pocket scope is a complete portable oscilloscope with a tiny size. With dozens of features found on full size digital oscilloscopes you'll be amazed how they squeezed all of it into a package a little larger than a Smartphone.

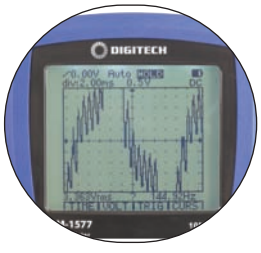
It's impressive list of features include full auto range operation, input sensitivity down to 1mV, real time sample rate up to 40MS/s, and bandwidth up to 10MHz. Aside from the standard scope features it also has some nifty tools including on screen markers for measurement of amplitude and time, RMS power measurement on audio speakers from 2 to 32 Ohms, hold function for the current display, and memory storage for 2 signals which are retained even after shutdown. The unit is housed in a durable rubber surround and the screen is LED backlit for easy viewing. An in-built Ni-MH battery gives up to 6 hours of run time and can be recharged with the included USB charge cable or a 9VDC plugpack (not included use Cat. MP-3146). Supplied with 1:1/1:10 CRO probe and USB charge cable.

Specifications	
Bandwidth	10MHz
Real time sample rate	40MS/s
Max input voltage	100Vp AC or DC
Input coupling	DC, AC, and GND
Timebase range	250ns to 1hr per division in 32 steps
Input range	1mV to 20V per division in 14 steps
Display size	50(W) x 25(H)mm
Display resolution	Full 128(W) x 64(H) pixels, Signal 118(W) x 49(H) pixels
Accuracy	+/-2.5%
Weight	200g
Battery	Inbuilt 4.8V Ni-MH rechargeable
Battery life	Up to 6hours
Recharge	9VDC 200mA from included USB charge cable or plugpack (available separately Cat. MP-3146)
Dimensions	114(H) x 74(W) x 29(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QC-1914	$249.00	$225.00	$198.95

1 YEAR WARRANTY

10MHz/4000 Count Handheld Scope DMM



NEW 2013

Smartly combines a well featured digital oscilloscope and a 4,000 count True RMS digital multimeter into one versatile package, whilst also featuring a USB interface and PC software to match. Perfect for laboratory work or for technicians working in the field, with more features than you can jab a probe at.

- True RMS
- Digital Oscilloscope
- USB PC interface
- PC logging software
- 128x128 graphic LCD display
- LED Backlight (3-stage)
- Auto power-off
- Data hold/Min/Max recording
- Relative measurement
- 100 record memory storage
- Diode test
- Autoranging
- Audible continuity
- 20A current range

DMM Specifications	
Display	128 x 128 graphic LCD (4000 count)
Security class	Cat III 1000V
Basic DCV accuracy	0.75%
DC voltage	400mV, 4V, 40V, 400V (+/-0.75%), 1000V (+/-1.5%)
AC voltage	400mV, 4V, 40V, 400V (+/-1%), 1000V (+/-1.5%), 50Hz-1kHz
DC current	40mA, 400mA, 4A, 20A (+/-1.2%)
AC current	40mA, 400mA, 4A, 20A (+/-1.5%), 50Hz-1kHz
Resistance	400R, 4K, 40K, 400K, 4M (+/-1%), 40M (+/-3%)
Capacitance	51.2nF, 512nF, 5.12uF, 51.2uF, 100uF (+/-2%)
Frequency	5.12Hz 5.12MHz (+/-1%)
Inductance	
Temperature	
Ave/RMS	True RMS
Input impedance	10M
Special features	USB/PC interface, graphic display
Dimensions	186(L) x 86(W) x 32(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QM-1577	$399.00	$359.00	$319.00

DSO Specifications	
Simulation bandwidth	DC 10MHz
Vertical resolution	8 bits
Vertical sensitivity range	50m V/div - 200V/div
Vertical amplitude precision	+- (5% + 0.1div)
Automatic zero reference	In DC/dB measurement
Trigger level	+- 12 div (at each step 0.1 div)
Maximum real-time sampling rage	50Msps
Nonlinearity	+-1 bit
Coupling	DC/AC/GND
Indexing	Vertical +- 4.0, horizontal 12.8
When range	0.20us/div - 20s/div
Accuracy	+-(0.01% +0.1div)
Scanning mode	Auto/normal/single
Trigger slope	Rising along/down along

1 YEAR WARRANTY

FREQUENCY COUNTER

2.7GHz Digital Frequency Counter

Ideal for measuring functions of frequency, period totals and self-check. The counter readout is a large 10mm high intensity 7-segment LED display with gate time, range and unit of frequency indicators. Decimals are also included.Additional features include data hold, 1 step input attenuation to a factor of 20 and low pass filter. This instrument may be used for adjustment, repair and calibration of AM/FM radios, amateur/CB radios, computer clocks, audio/video equipment etc. This frequency counter is neatly presented in an robust high impact ABS case with sturdy rubber feet.

Specifications	
Frequency range	10Hz - 2700MHz
Display	8 digit LED
Gate time	0.01s /0.1s/1s
Accuracy	± 1Hz
	± Count figure
	± Time base
Input Characteristics Channel 1	
Input sensitivity	20mV @ 10Hz - 10 MHz
	25mV @ 10MHz - 100MHz
Input impedance	1M ohm
Max input voltage	250VRMS
Input Characteristics Channel 2	
Input sensitivity	25mV @ 100MHz - 2700MHz
Input impedance	50 ohm
Max input voltage	5VRMS
Power input	2240VAC 50Hz
Power consumption	5W
Dimensions	230(W) x 210 (H) x 76(D)mm
Weight	1.8kg

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QT-2202	$169.00	$151.95	$134.95

1 YEAR WARRANTY

FUNCTION GENERATOR

Velleman Handheld 1MHz Function Generator

Finally, a signal generator with the features of a bench top generator and a portable size! The Velleman HPG1 pocket signal generator will produce accurate test signals at frequencies from 1Hz all the way to 1MHz yet it is only a little bigger than a smartphone.

Easy to use, the pushbutton controls allow you to quickly set up generation of sine, square, and triangle waveforms with adjustable frequency and amplitude. The backlit LCD screen shows the current waveform and frequency settings. Frequency changes are in variable steps from 1Hz to 10kHz allowing you to change settings at your preferred speed. For more advanced testing it also has a frequency sweep mode to shift between two frequencies using a linear or logarithmic scale over an adjustable period. Signal amplitude is indicated by a handy slider bar with the output level also displayed in dBm and Vrms or Vpp (depending on waveform). An inbuilt Ni-MH battery gives up to 6 hours of run time and can be recharged with the included USB charge cable or a 9VDC plug pack (not included use Cat. MP-3146). Supplied with USB charge cable, BNC to RCA adaptor, and BNC to binding post adaptor.

Specifications	
Digital to analogue converter resolution	10 bits
Frequency range	1Hz to 1MHz
Frequency steps	1Hz, 10Hz, 100Hz, 1kHz, 10kHz
Waveforms	Sine, square and triangle
Maximum output voltage	8Vpp
Sweep modes	Linear or logarithmic, single or bidirectional
Sweep period	0.01Hz to 100Hz
Dimensions	114(H) x 74(W) x 29(D)mm
Display size	50(W) x 25(H)mm
Display resolution	128(W) x 64(H) pixels
Weight	200g
Battery	Inbuilt 4.8V Ni-MH rechargeable
Battery life	Up to 6hours
Recharge	9VDC 200mA from included USB charge cable or plug pack (sold separately use Cat. MP-3146)

	Cat.	Qty 1+	Qty 2+	Qty 5+
	QT-2304	$199.00	$178.95	$158.95

DATALOGGERS

USB Temperature/Humidity Dataloggers

A must for anyone involved with food preparation, archiving or storage or applications where starge of environment information is important. These USB dataloggers log temperature and humidity readings and store them in internal memory for later download to a PC. The measurement interval is adjustable - you simply set up the recording parameters then download the data when you need it. The data is recorded at the prescribed intervals and will alert you if preset min/max levels are exceeded. Countless applications including greenhouses, museums, warehouses, container storage, photography, archives, food preparation etc.

Two models available with mounting bracket and software included:

DIRECT PLUG IN TYPE
- Easy USB interface
- Mounting bracket included
- 32000 sample memory (16000 temperature, 16000 humidity)
- Software compatible with Windows 2000, XP, Vista

Specifications	
Range	–40 - 70°C (-40 - 158°F), 0 - 100% relative humidity
Accuracy	Humidity ±3%, Temperature ±1°C
Resolution	Humidity 0.1%, , Temperature 0.1°
Memory	3200 samples
Battery life	5 sec rate: 12 months, 10 sec rate: 2.5 years
Dimensions	100(L) x 22(W) x 20(H)mm

USB / LCD READOUT TYPE
- 32,700 sample memory
- Adjustable measurement cycle
- Analysis software included
- Software compatible with Windows 2000, XP, Vista

Specifications	
Range	–40 - 70°C (-40 - 158°F), 0 - 100% relative humidity
Accuracy	Humidity ±3%, Temperature ±1%
Resolution	Humidity 0.1% , Temperature 0.1°C
Memory	32,000 samples
Measurement cycle	1s - 24h
Dimensions	95(H) x 50(W) x 32(D)mm

QP-6013

QP-6014

	Cat.	Qty 1+	Qty 3+	Qty 6+
Datalogger	QP-6013	$119.00	$106.95	$94.95
With LCD	QP-6014	$179.00	$160.95	$142.95

THERMOMETERS

Digital Thermometer for Fridge or Freezer

Keep your fridge at the right temperature all year round. Simply attach the sensor to the desired position in the fridge or freezer and the thermometer on the outside with the attached magnets or enclosed Velcro strip. Set your preferred reading of °C or °F and then set the minimum and maximum temperatures with the alarm. If the fridge goes below or above these set temperatures the alarm will sound until you manually turn it off to investigate the problem. No more spoiled food ever again. Shows room temperature at the touch of a button as well.

Specifications	
Room temp range	-10 to 50°C
Fridge temp range	-50 to 70°C
Display size	26(W) x 13(H)mm
Fridge sensor cord	1m
Requires	1 x AAA battery (supplied)
Dimensions	67(W) x 39(H) x 15(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7209	$19.95	$17.70	$15.70

Forehead Thermometer LCD

Quickly and easily check for a fever in an infant, child, or adult. Simply hold the probe end to the forehead and within 1 second a temperature reading will be returned. Ergonomic design with a storage case is included.

- Measures both Celsius (˚C) and Fahrenheit (˚F)
- Backlight LCD
- One second instant measurement
- Storage case included
- Power: 1 x CR2032 battery included
- Dimensions: 130(L) x 50(W) x 30(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7271	$29.95	$26.90	$23.70

Temperature Measurement

TEMPERATURE MEASUREMENT

Low cost, high accuracy. New opportunities for greater monitoring of both batch & process control.

PROBE THERMOMETERS

Soft Tip Digital Thermometer

NEW 2013

- 10 seconds fast measurement
- Flexible probe
- Waterproof tip
- 0.1˚C resolution
- Store last reading
- Dimensions: 130(L) x 25(W) x 15(D)mm

Great for the home to measure the temperature of family members. This models features a soft flexible tip so can be used to measure temperature in a variety of places. Temperature is displayed on an easy to read LCD.

RELATED PRODUCT...
Looking for other Body Temperature Thermometers? They are in the Gadget section on pages 492-493.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7274	$9.95	$8.75	$7.75

LCD Probe Thermometer

- Pocket clip
- Stainless steel probe
- 150mm long

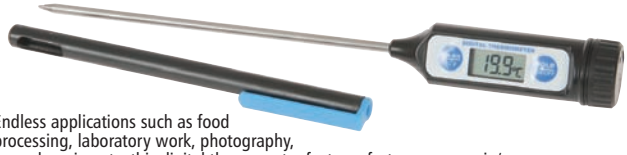
Multi-purpose digital thermometer for the kitchen, lab, factory, workshop or barbeque. It measures in Celsius and Fahrenheit and fits in a pocket.

Specifications	
Temperature	-50 - 120°C, -58 - 248°F
Accuracy	+/-1°C
Length	150mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7314	$9.95	$9.25	$7.75

Digital Stem Thermometer

- Requires LR44 battery (included) / 5000 hour battery life
- 205mm long



Endless applications such as food processing, laboratory work, photography, home brewing etc. this digital thermometer features fast response, min/max memory, data hold and automatic shut-off after 10 minutes. The probe is stainless steel, so it will never corrode, the body is splashproof and it will never need calibration.

Specifications	
Temperature	-50 - 200°C / -58 - 392°F
Accuracy	±1°C, ±2°F
Display resolution	0.1°
Sampling rate	Every 0.7 seconds

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7216	$22.95	$20.35	$18.35

TECH TIP

Distance to spot ratio is the ratio of the distance of the Thermometer to the object being measured, and the diameter of the temperature measurement area. The larger the ratio number the better the resolution.

NON-CONTACT THERMOMETERS

Mini Non-Contact IR IP67 Thermometer

- Batteries and lanyard included

Ultra compact, non-contact thermometer. IP67 rated so is ideal for industrial and lab applications. LCD readout gives temperature in Celsius or Fahrenheit.

Specifications	
Temperature	-33 to +110°C (-27 to +230°F)
Accuracy	2.5°C
Distance to spot ratio	1:1
Response time	1 second
Size	82(L) x 17(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7218	$29.95	$26.90	$23.70

Digital Thermometer with K-Type Thermocouple

- LCD
- Pocket Size
- Wide Temperature Range
- Thermocouples & Battery included

A handy pocket-size digital thermometer, suitable for the lab, workshop or in the field. It features an excellent measurement range from -50 to 750°C and a hold function to lock the reading on the display.

Specifications	
Display	2000 count
Temperature	–50°C to +750°C (±1%)
Sampling rate	2.5Hz
Special features	Data hold
Battery	1 x 9V
Dimensions	118(L) x 70(W) x 29(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1602	$39.95	$37.45	$31.90

Non-Contact Thermometer with Temperature Comparison & Audible Alarm

NEW 2013

- Celsius or Fahrenheit display
- Audible and visual warning

An easy way to compare the temperature between surfaces. Simply point the thermometer at a surface and press the trigger to set a reference temperature. Then as you move the thermometer to point at another surface, the device will produce an audible and visual warning if the temperature has exceeded or dropped below the reference point, which increases the further the surface is from the reference temperature.

Excellent for quickly diagnosing inconsistencies with office air conditioner systems, refrigeration systems, automotive cooling systems, checking for hotspots in mechanical equipment, etc.

- Features a backlit flip-up LCD for use in the dark.

Specifications	
Temperature	-50-260˚C (-58-500˚F)
Resolution	0.1˚C
Response time	<500us
Power	1 x 9V battery (Included)
Dimensions	170(H) x 125(D) x 67(W)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7211	$119.00	$106.95	$94.95

This colour pricebar denotes a Clearance item - check for specials.

NON-CONTACT THERMOMETERS (CONTINUED)

Economy Non-Contact Thermometer

- Built-in laser pointer
- Wide temperature range
- 8:1 Distance to spot ratio
- Auto data hold
- Carry case included

Specifications	
Display	3 digit
Optical resolution	8:1
Temperature	-30°C to +260°C (-22° to +500° F)
Emissive	Fixed to 0.95
Sampling rate	< 1s
Special features	Built-in laser pointer, automatic data hold, backlight, min / max record, over range indicator
Battery	1 x 9V
Dimensions	131(H) x 96(W) x 35(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-7215	$49.95	$44.90	$39.90

Safely measure temperature in hard to reach places, hot or hazardous areas using the built-in laser pointer to target the surface. Compact and easy to use, the thermometer can provide several readings within seconds. Backlighting illuminates the LCD display for taking measurements at night or in low light areas. Carry case included.

1 YEAR WARRANTY

Non-Contact Thermometer with Dual Laser Targeting

- Laser pointing targeting
- Wide temperature range
- 12:1 Distance to spot ratio
- Backlit LCD
- Holster Included

Specifications	
Display	3.5 digit
Optical resolution	12:1
Temperature	-50°C to +650°C / -58°F to +1202°F (±1%)
Emissivity	Adjustable 0.10 to 1.0
Sampling rate	6.7Hz
Special features	Dual laser targeting, dual display, automatic data hold, backlight, trigger lock, max hold, high/low alarm
Battery	1 x 9V
Dimensions	146(L) x 104(W) x 43(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-7221	$99.00	$88.95	$78.95

Measure the temperature of any surface from a safe distance with this compact sized non-contact thermometer. With a wide temperature range and laser targeting, this portable instrument is easy to use for quick and accurate temperature checking of any surface. With a 12:1 distance to spot size, you can get the temperature of almost the exact spot in most cases. With the backlight, the temperature can be read in low light conditions.

- Holster included

1 YEAR WARRANTY

Professional High Temperature Non-Contact Thermometer

- Backlit LCD
- Professional grade
- Wide temperature range
- 30:1 distance to spot ratio
- Auto data hold
- Moulded carry case

Specifications	
Display	4.5 digit
Optical resolution	30:1
Temperature	-50°C to +1000°C / -58°F to +1832°F (±1.5%)
Emissivity	Adjustable 0.10 to 1.0
Sampling rate	1Hz
Special features	Laser targeting, automatic data hold, dual display, backlight, trigger lock, min / max / dif / avg record, high / low alarm.
Battery	1 x 9V
Dimensions	230(L) x 120(W) x 56(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-7226	$189.00	$169.95	$150.95

This professional infrared thermometer allows you to measure high temperatures with safety. With a range of -50 to 1000° Celsius, it's suitable for lab, furnace, forge and small-scale foundry work. The laser pointer allows for accurate placement of the measurement point and the 30:1 distance-to-target ratio allows for accurate measurement from greater distances. The unit can be mounted on a tripod with trigger lock for unattended min/max logging.

- Supplied in a robust blow-moulded case

1 YEAR WARRANTY

Thermocouple Thermometer - 2 Input

- Auto power off
- Backlit LCD
- Max and hold function
- Celsius & Fahrenheit
- Holster included
- Thermocouples included

Specifications	
Display	2000 count
Temperature	-50°C to 1300°C (-58°F to 2000°F)
Special features	Backlight, data hold, max hold
Battery	1 x 9V
Dimensions	172(L) x 84(W) x 42(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1601	$79.95	$74.95	$63.95

Fast response and laboratory accuracy, works with K-type thermocouples and offers 0.1 or 1° user-selectable resolution over the entire measurement range. You can monitor two separate temperatures or use the differential function to compare them.

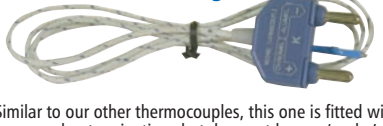
1 YEAR WARRANTY

Probe K Type Thermocouple

This plug in thermocouple probe allows you to measure external temperature readings on DMMs. It will measure from below minus 50°C to above 250°C depending on the DMM it is used with. Suitable for gas and liquid, both with good accuracy of 0.75%.

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1282	$14.95	$13.35	$11.70

Wire Type K Thermocouple with Twin Banana Plugs

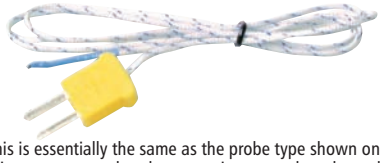


Similar to our other thermocouples, this one is fitted with banana plug terminations but does not have a 'probe' assembly. The thermocouple junction will measure over a wide range of temperature but this will depend on the DMM used.

- Typical thermocouple measurement range from as low as -50°C to over 1200°C

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1284	$11.95	$10.70	$9.50

Wire Type K Thermocouple



This is essentially the same as the probe type shown on this page, except that the sensor is mounted on the end of the cable - no probe. Suits digital multimeters. Measures from below minus 40°C to over 1200°C, actual range depends on the DMM its used with.

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1283	$11.95	$10.70	$9.50

Environmental Monitoring

SOUND LEVEL METERS

Micro Sound Level Meter

- Very compact size
- Min / max hold
- Backlit

TECH TIP!
DIGITAL FOR AN ANALOGUE PRICE!

1 YEAR WARRANTY

With a range of 40 - 130dB, this little meter is ideal for environmental, safety and sound system testing. It has a fast response time for transient measurements and is A-weighted for the frequency range of human hearing. Extremely small and price matches its size.

Specifications	
Display	3 digit
Range	40 - 130dB (±3.0dB)
Frequency range	31.5Hz to 8kHz
Weighting	A weighted
Special features	Pocket sized, min / max hold, backlight
Battery	1 x 9V (included)
Dimensions	128(L) x 51(W) x 32(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1591	$39.95	$35.90	$31.90

Compact Digital Sound Level Meter

- Compact size
- Data hold
- Backlit
- Carry case

1 YEAR WARRANTY

Featuring a wide dynamic range from 30 to 130dB, it can measure both A and C weightings to get the right response for the human ear and can have fast or slow responses to get an "ambient" reading or a short noise. Includes data hold and min/max functions, as well as tripod mount for prolonged use. Great for car audio installers, clubs and PA. Supplied with carry case and wind sock.

Specifications	
Display	3.5 digit
Range	30-130dB (±1.4dB)
Frequency range	31.5Hz to 8kHz
Weighting	AC selectable weighting
Response	Fast / slow selectable
Special features	Max hold, data hold, backlight
Battery	1 x 9V
Dimensions	210(L) x 55(W) x 32(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1589	$99.00	$88.95	$78.95

Pro Sound Level Meter with Calibrator

- Compliant with Type 2 (Class 2) Standards
- A & C weighting scales
- Fast and slow response
- Tripod mounting thread
- External calibrator (included)
- Maximum hold feature
- Min/Max measurement
- AC & DC Analogue outputs
- Tripod Included
- Backlit LCD

TECH TIP!
Approved Type 2 (Class 2)

Conforms to IEC 61672-1 Class 2 for sound level meters.

1 YEAR WARRANTY

Suitable where accuracy, repeatability or validation is required. This sound level meter also includes a calibrator so you can verify and authenticate your results. Scales for A and C weighting are included so it is ideal for vehicle noise testing, race scrutineering, traffic or aircraft noise testing or any evidence-based noise testing. Rugged and easy to operate for the garage environment, it also has both AC (1Vrms representation of the meters waveform) and DC (10mV/dB) analogue outputs so you can connect it to other equipment such as data-loggers, plotters, oscilloscopes etc.

Specifications	
Display	3.5 digit
Accuracy	±1.4dB
Calibration	94, 114dB
Dynamic range	50dB
Resolution	0.1dB
Update	Every 0.5 seconds
Frequency range	31.5Hz - 8kHz
Dimensions	278(L) x 76(W) x 50(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1592	$399.00	$359.00	$319.00

LIGHTMETER

Digital Lightmeter

- LCD
- 3.5 Digit
- 4 Ranges
- 0.01 to 50,000 Lux
- Carry Case
- Separate Photo Detector

The photo detector is wired on a curly cord which extends to 1 metre, allowing the user to take light measurements at the optimum position. Sensor cover included.

A handy digital lightmeter for photography, lab work, architectural, engineering and construction applications. It includes an integrated stand and will measure incident light in 4 ranges: 0.01 to 200, 200 to 2,000, 2,000 to 20,000 and 20,000 to 50,000 lux.

Specifications	
Display	2000 count
Range	200, 2000, 20000, 50000 lux/Fc
Accuracy	±5%±10d (<10,000lux)
	±10%±10d (>10,000lux)
Resolution	0.1lux/Fc
Sampling rate	1.5Hz
Special features	Data hold, max hold
Battery	1 x A23 (12V)
Dimensions	188(L) x 64(W) x 24.5(D)mm
Photo detector	115(L) x 60(W) x 27(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1587	$49.95	$44.90	$39.90

1 YEAR WARRANTY

LASER DISTANCE MEASURING

Professional Laser Distance Meter - 35m

NEW 2013

A professional grade laser distance meter brimming with features. It allows you to easily measure the distance between two points, it can calculate the area of a rectangle or the volume of a cube with ease. You can measure the height of a wall thanks to the inbuilt Pythagoras calculator. Measurements can be added or subtracted from each other using the plus and minus buttons.

- Carrying pouch included

1 YEAR WARRANTY

Specifications	
Measurement range	0.05 to 35m
Accuracy	+-1.5m
Smallest unit displayed	1mm
Measuring units	m,in,ft
Laser class	Class II 635nm < 1mW
Batteries	Requires 2 x AAA
Rating	IP54
Measurement records	20
Dimensions	110(L) x 45(W) x 27(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1622	$129.00	$115.95	$102.95

Professional Laser Distance Meter with Smartphone App - 70m

NEW 2013

An advanced professional laser distance meter which can be paired with a Smartphone adding greater functionality. The unit will measure distance, area, volume, Pythagoras and tilt angle with ease, and will store the last 20 measurements. You can add measurements together or subtract from one another. The Smartphone app (MeterBox) allows you to store recorded data on your phone and share it with colleagues over the cloud, and even allows you to take a picture of what is being measured and overlay the measurements on the picture. Also includes a tripod thread for mounting to most camera stands.

- MeterBox app available for Android and iOS devices.
- Auto laser off after 30 secs/ instrument switch-off after 3 mins

Note: May be different colour to one shown.

1 YEAR WARRANTY

Specifications	
Measuring Range	0.05 to 70m
Accuracy	+-1.5mm
Measuring units	metres, inches, feet
Tilt sensor measuring range	+-65 degree
Measurement history	20 records
Batteries	Requires 2 x AA
Dimensions	134(L) x 52(W) x 30(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
QM-1624	$209.00	$187.95	$166.95

CABLE TESTER

Roadies Cable Tester

Simply plug the cable under test and turn the rotary switch. The LED array gives you an instant go/no-go status of each conductor path in the cable. With bullet-proof all-metal construction, it's ideally suited to the ruff and tumble world of rock 'n' roll, but is also suitable for any technician working with cables. Faster and much easier than a multimeter. Requires 1 x 9V battery. (use SB-2423)

Tests the following cables:
- Speakon 4, 8P
- 1/4" mono & TRS
- DIN 3, 5, 7, 8P
- XLR 3, 5P
- Phono (RCA)
- USB
- RJ45
- Dimensions: 190(L) x 98(W) x 35(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-0405	$49.95	$44.90	$39.90

STUD DETECTOR

3 in 1 Stud Detector with LCD Screen

NEW 2013

Survey your wall with ease by sliding this handheld detector along the surface. With separate modes to sense wall studs, mains cables, and metal items this handy device allows you to locate and mark items hidden within a wall before cutting or drilling. Object detection is indicated by a buzzer and on the LCD screen, with the screen display including a numerical and barograph reading of the detection intensity. With repeated sweeps of a wall section you to can use the screen reading to get the precise location of the detected item.

- Automatic calibration
- Requires 9V battery
- Dimensions: 150(H) x 67(W) x 28(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
QP-2283	$24.95	$22.35	$19.70

3 in 1 Stud Detector with Laser Level

Stud detectors have been around for a long time but sometimes one appears which becomes a definite buy for any serious handyman. This model is one of those! Featuring a stud detector which just doesn't "beep" when you're over the stud, it shows the proximity when you are NEAR a stud via the large LCD and shows a target graphic when you're spot on. Also featuring live wire (voltage) detection, you can be sure than nail you're about to hammer into the wall won't end up in your mains wiring.

The best feature of all is the built in laser level. Rotating across 180 degrees with stops on 45 and 90°, you can instantly and easily do layouts and basic tasks such as picture levelling in a snap. The inbuilt spirit level ensures you're at the right angle.

- Laser levelling, layout and stud locating on vertical and horizontal surfaces.
- Wood, metal and live wire detection.
- 180° pivoting laser plane with level and plumb vials
- 20' laser line projections onto work surface with 90° squaring
- Two self contained half pins to mount unit to work surface
- LCD sensing and mode display with target graphics
- LED display with continuous live wire detection
- Thumb dial adjustable feet for levelling the laser
- Easy keypad operations and comfortable grip
- Powered by 9V Battery (included)
- Size: 180(H) x 67(W) x 38(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
QP-2288	$49.95	$46.90	$39.90

VOLTAGE DETECTORS & TESTERS

NEW 2013

LED Probe Circuit Tester

A must have for any mechanic or electrician to allow quick visible testing for power in circuits. Attach the clip to ground and touch the probe on the positive of a battery, relay, solenoid etc and the LED will glow if power is flowing through the circuit.

- Tests 6/12V circuits (not suitable for computer components)
- Durable insulated clip and heavy duty curly cord
- Spring loaded strain relief prevents the cord pulling out
- High intensity glow for under hood and under dash visibility
- Dimensions: 260(L) x 28(D)mm

Note: Battery not included

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2146	$9.95	$8.75	$7.75

Non-contact AC Voltage Proximity Detector

About the size of a marking pen, this non-contact tester detects AC voltages from 200 - 1000V. Featuring red and green indicators, the unit will glow green when safe, and when voltage is detected it will flash red and beep at an increasing rate as you get closer to the voltage source. It can be used for detecting live mains in outlets, power boards or insulated wiring. It also has an LED torch and a handy pocket clip. A must for every toolbox.

- Green and Red LED indicators
- Switch able audible and silent mode
- Auto Power Off
- Flashlight function
- CAT III rated
- Dimensions 176(L) x 26(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
QP-2268	$19.95	$17.70	$15.70

Miscellaneous Test Equipment

VOLTAGE TESTERS (CONTINUED)

Electrical Tester with Polarity Checking & Light

Electrical testers have always been a common item in a Sparkie's toolbox and this model is certainly worthy of a place in any handyman's toolbox! The first thing you will notice with this tester is the rugged housing which is designed for maximum safety. Using double moulding, the probes feel good to grip and are IP64 rated. Testing voltage is simple with the two probes being contacted and the unit's LED display will indicate to the nearest voltage up to 690V and polarity will be indicated so if it's DC, you know which one is positive. Not only that, but this unit will also check for low impedance, continuity, do a single pole phase test and show rotary field indication. A handy LED light is included for dimly lit locations like a roof cavity. Powered by 2xAAA batteries (included). Voltage test works without batteries.

- IP64 rated housing and Cat III 1000V/ Cat IV 600V rated for safety

DIGITECH

Specifications	
Voltage range (AC/DC)	12, 24, 36, 50, 120, 230, 400, 690V
ACV Frequency range	0 – 60Hz
Internal impedance	<200kohms
Dimensions	240(H) x 78(W) x 40(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2286	$49.95	$44.90	$39.90

OTHER TEST EQUIPMENT

Power Point & Leakage Tester

Test your power points using this versatile tester. It checks most types of power points within 110V to 240V range for correct wiring and trip levels for earth leakage circuit breakers.

The combination of lights on the front panel identifies the following problems:

- No earth connected
- No neutral connected
- No active connected
- Active and neutral reversed
- Active and earth reversed

To determine ELCB trip levels simply slide the switch from 10mA up toward 100mA. All ELCBs should trip before 100mA. Switch positions are 10mA, 15mA, 30mA and 100mA.

RELATED PRODUCT...
For more Mains Power Meters & Monitors see page 277

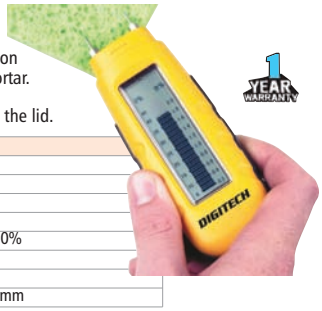
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2000	$19.95	$17.70	$15.70

Moisture Level Meter

Featuring a simple to use and easy to read display, a bar graph extends up the screen indicating the amount of moisture. Can be used on timber, cardboard, paper, and even on hardened materials such as concrete and mortar.

Features an integrated calibration checker in the lid.



1 YEAR WARRANTY

Specifications	
Measuring principle	Electrical resistance
Electrode length	8mm
Electrodes	Integrated, replaceable
Measurement range	Wood: 6–44%
	Other materials: 0.2–2.0%
Housing	Impact-proof plastic
Battery	2 x CR2032
Dimensions	140(H) x 48(W) x 33(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2292	$69.95	$62.95	$55.95

Heat Index Monitor

NEW 2013

This unit could save your life. It not only measures temperature and humidity it shows on a simple scale just how dangerous the environment is around you. Many people die of heat stroke every year because they are unaware of the danger of high heat/humidity - especially the elderly.

- Heatstroke alert on 4 levels
- Colour change denoted elevated danger
- Displays ambient temp, humidity
- Clock as well
- Temp -10˚C to 60˚C
- Requires 2 x AAA batteries (not supplied)
- Dimensions: 30(L) x 59(W) x 90(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7311	$24.95	$22.35	$19.70

Electronic LPG Gas Level Monitor

The clever unit attaches to your steel LPG bottle. It detects the gas in your bottle, (typically 9kg) and gives a musical alarm when the gas in your bottle is low. Don't run out of gas halfway thru a barbie ever again!

NEW 2013

- Works on any steel LPG cylinder
- Uses 2 x AA batteries (supplied)
- Virtually no installation
- Magnetically attaches to cylinder

BACK OF PRODUCT

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1662	$9.95	$8.75	$7.75

Gas Leakage Detector

NEW 2013

Gas leaks can be incredibly dangerous, even small ones. Run a quick check over your house or gas powered devices to make sure all outlets are safely sealed. Hold the power button for a few seconds and then place the detector near the suspected leak and visual/audible warnings will sound if the leak is bad, moderate or safe. Red (Hi), orange (Lo), and green (safe) LEDs denote the severity of the leak.

Specifications	
Requires	2 x AAA batteries (not included)
Sensor detects	butane, propane, acetylene, and methane (natural gas)
Dimensions	165(L) x 27(W) x 21(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2299	$39.95	$35.90	$31.90

Hand Held pH Meter

A simple and accurate device for checking pH levels in water. The unit is equally valuable for keeping your fish tank at the proper pH level for optimum fish health or checking your swimming pool for the right balance. The meter is simple to use and the large liquid crystal display gives clear and precise readings that are much more accurate than messy chemicals. The unit has an extendable probe that can be adjusted to suit each application. The meter is supplied with a 9 volt battery, a bottle of pH 7.0 buffer solution and calibration tool.

1 YEAR WARRANTY

Specifications	
Range	1 - 14 pH
Resolution	0.1 pH
Accuracy	±0.2 pH
Operating temperature	0° - 50°C
Weight	120g
Dimensions	40(W) x 158(H) x 34(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
pH Meter	QM-1670	$59.95	$53.95	$47.90
Buffer Solution (50ml)	QM-1671	$8.95	$7.95	$6.95

COUNTER

Handheld/Desk Mounted Tally Counter

This tally counter is ideal for checking attendance numbers at large events, counting inventory or making sure tour participant numbers are correct. Made from chrome plated aluminium, it is easily removed from its base to comfortably fit into the palm of your hand. The base can also be mounted on a desk or other surface for convenience. A gentle push of the thumb counts from 0-9999. To reset the counter, just wind the knob back to 0000.

- 60(H) x 57(D) x 57(W)mm

TECH TIP!
Removable Base For Handheld Use

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TC-2500	$12.95	$11.35	$10.35

AUTOMOTIVE TESTERS

As You Go Alternator / Battery Monitor

NEW 2013

Having car batteries or alternators diagnosed and fixed can be unnecessarily expensive, both sit firmly in the realm of DIY. Replacing an alternator can cost up to $300, when in fact all that may need to be replaced is a $20 voltage regulator. This device will help you diagnose the source of your cars electrical problems and potentially save you a lot of money.

It simply plugs into your car's cigarette lighter socket and will present you with alternator and battery status. On the left side is the alternator status indicating if it's charging the battery at too high a voltage (red LED >14.8V), Normal (green LED 13.4-14.75V) or too low (yellow LED <13.2V). On the right is the battery status green LED Charged 12.4-12.6V, yellow LED Recharge 11.8-12.35V, and red LED Dead <11.75V indicators.

Alternator status	
Red LED	Too high >14.8V
Green LED	Normal 13.4-14.75V
Yellow LED	Too low <13.2V
Battery status	
Green LED	Charged 12.4-12.6V
Yellow LED	Recharge 11.8-12.35V
Red LED	Dead <11.75V
Specifications	
Compatible with	12VDC systems
Dimensions	85(L) x 75(W) x 15(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	PP-2142	$9.95	$8.75	$7.75

Battery, Charger & Alternator Testers

These handy devices quickly indicate the condition of your car or truck battery, charger or alternator. They use 3 LEDs to indicate battery and charge under engine on/engine off conditions. Compact and lightweight, they include 600mm leads with crocodile clips, and an inbuilt magnet to secure the unit while taking measurements.

- Dimensions: 120(L) x 33(W) x 20(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
12V	QP-2258	$12.95	$11.35	$10.35

OBD2 (Car Computer) Plug / Memory Saver

NEW 2013

Most modern cars engine systems are controlled by a computer (engine control unit). They adjust fuel/air mixture, ignition timing, and a range of other engine performance settings based off information they receive from a number of sensors plugged into your car (oxygen sensor, temperature sensors etc). When disconnecting your car's battery for simple maintenance, all of your cars computer settings will be wiped. Radio station settings, engine fault codes, keyless entry codes, will all be gone and the ECU will have to re-learn them or you will have to manually re-program them. That's where the memory saver comes in. Just connect the cigarette plug to a 12VDC source, such as a jump starter and the OBD2 port to your cars socket (commonly found under the steering wheel) to save the ECU settings.

- 16 pin OBD-II Connector
- Easy to read LED indicates connection
- Compatible with most post-1996 vehicles fitted with an OBD2 port
- Length: 1.5m

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-2140	$12.95	$11.35	$10.35

3 - 28V Pro Grade Automotive Tester

This professional grade cordless voltage tester is designed for used on modern cars. The voltage tester detects from 3 to 28 volts. It will light up and buzz when positive voltage is detected. Made from rugged chrome metal construction it is safe to use with ECMs, air bags, sensors, transducers etc. The circuit tester does not require a ground wire or clip, so it is easy to check in hard to reach places. A probe is supplied with a V-Groove tip to make piercing wire insulation safe. N size battery included (replacement batteries use SB-2346).

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2212	$14.95	$13.35	$11.70

Cigarette Lighter Battery Monitor

Check the voltage output of your car's battery quickly and easily. Simply plug this handy voltmeter into the cigarette lighter socket and get an instant readout of the electrical system's voltage.

- Display resolution: 0.1V
- Accuracy: +/- 2%
- Operating voltage: 8 - 30VDC

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QP-2220	$19.95	$17.70	$15.70

12VDC Voltage Polarity Easy Tester

A passive, quick and easy testing solution that performs five essential tests in the field:

1. Voltage: Check voltage of power sources easily in the field without a multimeter
2. Load: Apply a simulated 1A or 500mA load to power sources to check the voltage under load
3. Polarity: Check polarity of connections using the illuminated power connector
4. Voltage drop: Check the voltage drop over long cable runs
5. PTC: Check the integrity of PTC fuses

NEW LOWER PRICE

The load applied is selectable between 1A or 500mA to test wiring depending on location, device to be tested, and anticipated voltage drop. The illuminated power connector clearly displays polarity. Ideal for CCTV and security installers, car audio, roadies, AV techs etc.

- Dimensions: 51(L) x 44(W) x 29(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2215	$19.95	$17.70	$15.70

Brake Fluid Tester

Digital brake fluid tester suitable for determining brake fluid quality. Quality is tested and indicated on five LEDs showing percentage of water in the brake fluid.

- Includes 1 x AAA battery
- Dimensions: 150mm long

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2291	$29.95	$26.90	$23.70

Automotive Multi-Function Circuit Tester with LCD

Designed to test the electrical system of an automotive vehicle running on 12V or 24V. One of the great features is being able to activate components with positive or negative without using a jumper wire. This would, for example, allow you to send voltage to a relay that controls whether or not a fan switches on. You can quickly test the voltage and polarity of a circuit or whether it's short or open, check continuity, locate cylinders which are misfiring, measure frequency of ignition pulses, test solenoids, lights and more. To top it all off the easy to read LCD is backlit so it's perfect for the dark crevices of an engine bay. All the features of a brand name unit at a fraction of the price.

- Works on 12 or 24V systems
- Dimensions: 240(L) x 78(H) x 40(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1494	$49.95	$44.90	$39.90

Digital Tachometer

This easy-to-use hand-held digital tachometer measures up to 99,999 RPM and features a large LCD, laser pointer, low battery indicator, and memory recall for the last displayed value, minimum value, and maximum value.

It also features a DC socket for mains power (5VDC at 50mA). It can also be switched to measure either actual RPM or total revolutions.

Supplied with carry case and 600mm reflective tape marks, which can be cut to size.

1 YEAR WARRANTY

- 5 Digit
- 99,999 RPM

Specifications	
Display	2000 count
Test range	2.5 to 99,999 RPM
Basic DC accuracy	0.5%
Sampling	0.5 sec (over 120RPM)
Range select	Autoranging
Detection distance	50 to 500mm
Power consumption	50mA approx.
Batteries	4 x AA batteries (included)
Dimensions	160(H) x 72(W) x 37(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1448	$79.95	$71.95	$63.95

Test & Inspection Equipment

AUTOMOTIVE TYRE GAUGES

3 in 1 Digital Tyre Pressure Gauge

This pocket sized digital tyre gauge measures tyre pressure in four units, and also your tyre tread depth to take the guessing game out of when it's time to change your tyres. Features a large backlit LCD display for reading at night and also features a blue LED light in case you get caught out at night. A must have for any motoring enthusiast.

- Units of measure: PSI, Bar, Kgf/cm , kPa

Specifications - Tyre gauge	
Range	0-100PSI, 0-7.0Bar,0-7Kgf/cm ,0-700kPa
Resolution	0.1PSI, 0.01Bar, 0.01Bar,).01Kgf/cm ,1kPa
Accuracy	+/-1%
Specifications - Tread depth	
Range	0-22mm
Resolution	0.01mm
Battery	one CR2032 battery included
Dimensions	100(L) x 50(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2297	$14.95	$13.35	$11.70

Digital Tyre Pressure Gauge

Incorrect tyre pressure can have a detrimental effect on vehicle handling and cause uneven or premature tyre wear, which results in early (and expensive) tyre replacement. This simple device makes it easy to keep track of tyre pressure and avoid pressure related problems. The reading is displayed on the unit's built-in LCD screen. Includes an integrated torch for night measurements.

- Displays in bar, PSI, or kPa
- Includes 2 x AAA batteries

Specifications	
Range	5 - 100PSI
Resolution	0.1PSI
Accuracy	+/- 0.5PSI
Operating temp	-10° - 40°C
Dimensions	156(L) x 42(W) x 20(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2293	$14.95	$13.35	$11.70

Wireless Tyre Pressure Monitoring Kit

Unevenly inflated tyres can increase tyre tread wear, thus decreasing their life span and potentially causing steering alignment problems. Flat tyres also increase friction with the road, which will add drag to your car, ultimately costing you more money not to mention the discomfort when driving. This handy device has 4 external sensors that are screwed onto your tyre wheel stems which then feed PSI data to a 12VDC powered monitor that plugs into the cigarette lighter socket. The sensors will start transmitting when you reach over 20km/h (approx). The receiver will then rotate the latest pressure reading for each tyre position. Features a low pressure warning which sounds at 25PSI and a high pressure warning if the tyre(s) reach 48PSI (these thresholds can't be adjusted). Great for automotive enthusiasts, racing & 4WD applications.

- Suitable for vehicles designed for 30-42PSI

Specifications	
Pressure Measurement	PSI
Pressure Range	0 to 50PSI
High pressure alarm	48PSI (Fixed)
Low pressure alarm	25PSI (Fixed)
Each sensor includes	1 x CR-1632 3V Lithium battery (replaceable)
Operating Frequency	433.92MHz
Sensor dimensions	23.5(Dia.) x 15(H)mm

	Cat.	Qty 1+	Qty 2+
	QP-2298	$199.00	$178.95

USB INSPECTION CAMERAS

USB Mini Inspection Camera with 1.5m Flexible Cable

Inspect areas your head or hands simply can't fit into and your limited humans eyes can't see. Ideal for finding dropped screws/bolts, seeing inside car engine bays, checking inside pipes, under grates, up rangehoods, in ceilings, and much more. This unit comes with three brilliant add-ons, a hook, a magnet, and a 45 degree mirror that can be attached to the end of the camera to help you retrieve those important bits. There are 4 white LEDs at the front of the camera that can have their brightness adjusted with a dial fused onto the cable. With the supplied software you can also capture video and images for playback at a later date. Requires no batteries, just connect to your laptop and start viewing.

- Water resistant camera head and cable
- 4 White LED Lights (brightness adjustable)
- Compatible with Windows XP, Vista, 7, 8

Specifications	
Flexible cable neck diameter	5mm
USB cable	USB2.0
Camera head outer diameter	10mm
Resolution	640x480
Lens view angle	54 degrees
Focal distance	6cm-infinite
Frame rate	up to 30fps @ 640x480
Length	1.5m

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3373	$39.95	$35.90	$33.90

USB Mini Inspection Camera - 7m

Use your laptop as a monitor and you have a compact inspection camera for probing into all manner of places - checking for termites and other rodents, insulation, finding lost tools etc. The camera is only 10mm diameter and has four variable intensity LEDs for illuminating the area under examination, and has a 7m long cable to allow you to get into the deeper places that can't be reached with a shorter cable.

- Mirror and magnet pick-up tool included
- Software included
- USB powered
- 7m long cable
- 640 x 480 resolution
- Dimensions: 10(Dia)mm x 7m long

	Cat.	Qty 1+	Qty 2+	Qty 4+
7m	QC-3371	$49.95	$44.90	$42.45

USB Mini Inspection Camera with 7m Flexible Cable

A water resistant inspection camera with a massive flexible 7m cable so it will remain rigid allowing you to probe into all sorts of areas. A magnet, hook, and 45 degree mirror attachment are included to enhance the cameras ability to retrieve impossible to get bolts, or other pieces of equipment. Just plug it into your laptop and view the camera live, record videos, and take snapshots for later use.

- Water resistance camera head and cable
- 4 white LEDs (brightness adjustable)
- Compatible with Windows XP, Vista, 7, 8

Specifications	
Camera head outer diameter	10mm
Resolution	640x480
Lens view angle	54 degrees
Focal distance	6cm-infinite
Frame rate	Up to 30fps@640x480
Length	7m

	Cat.	Qty 1+	Qty 2+	Qty 4+
7m	QC-3374	$59.95	$53.95	$50.95

Wi-Fi Inspection Camera to suit an iPhone®

Inspection cameras are often restricted by a fixed screen. This reduces the flexibility and range of objects you need to get a close look it. This inspection camera overcomes these limitations by using your iPhone® as the screen. It gives you a new level of freedom for finding a pesky screw that's dropped into your engine bay, or for simply seeing between cracks or inside dark confined spaces. You can use it wirelessly thanks to the internal rechargeable battery or wired with the supplied mains to mini USB adaptor. The flexible gooseneck can be bent and twisted to be able to see just about anywhere.

The camera itself creates an open Wi-Fi network, simply connect to it with your phone, grab the app and start viewing close-ups. Couldn't be easier! The camera lens is lined with 4 white LEDs with adjustable brightness. An iPhone® 3/4 and 5 brackets are included so you can lock your phone into position on the handle if needed. Two camera clip add-ons are included, a small hook for picking up objects, and a magnet for retrieving that lost screw or nut. A absolute godsend for anyone who has dropped a water pump bolt down a shaft that no human finger could reach.

IS Cam app available on the app store.

Note: iPhone® not included

Specifications	
Suitable for	iPhone® 3/4/5
Camera type	1/8" Colour CMOS
Rating	IP67
Camera sensor	1M
Resolution	640x480 VGA
Video frame rate	30fps
Video format	MJPEG
Picture format	JPG
Viewing angle	60 degrees
Camera illumination	4 LEDs (white, adjustable)
Wi-Fi	802.11b/g/n
Transmission range	50m (clear sight)
Flexible gooseneck length	685mm
Handle dimensions	180(L) x 45(W) x 50(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3351	$149.00	$133.95	$126.95

FIND OUT MORE IN STORE

Our staff can offer friendly and expert advice, from product information to electronics solutions; we're here to help.

CCTV IN-FIELD MONITORS, INSPECTION CAMERAS

Inspection Camera with 2.4" LCD

The tiny camera is attached to a 1m long flexible gooseneck allowing you to see into extremely confined spaces. For example, find the bolt position behind a car engine, view cabling in a roof or wall cavity, find that screw which dropped behind the fridge and much more. The unit features a CMOS sensor with low illumination. Features two high-brightness LEDs with 3 levels of brightness and is ergonomically designed unit for easy use.

- 2.4" Colour LCD
- 0.3MP Colour CMOS Camera
- Gooseneck length: 1000(L)mm
- Requires 4 x AA batteries (not included)
- Running time: 1-2 hours continuous
- Dimensions: 180(L) x 85(W) x 25(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8714	$79.95	$71.95	$67.95

Inspection Camera with 2.4" LCD

With a camera diameter of only 9mm, detailed inspection of some very tight spots is possible. Its comfortable grip and forward facing controls make it easy to detect and diagnose the inaccessible. 9mm camera head for up-close visual inspections in tight spaces. Requires 4 x AA batteries.

1 YEAR WARRANTY

- Forward facing controls
- Adjustable brightness LED illuminator
- Adjustable LCD brightness

Specifications	
Sensor	CMOS
Display	2.4" colour LCD
Resolution	480 x 234 pixels
Reach	1m
Attachments	Mirror, hook & pick-up magnet

	Cat.	Qty 1+	Qty 2+	Qty 4+
Inspection Camera	QC-8710	$119.00	$106.95	$100.95
Extension Shaft 2m	QC-8702	$79.00	$70.95	$66.95

Inspection Camera with Record and Detachable Wireless Screen

With a 9mm diameter and four LEDs, the head of this inspection camera can capture video and pictures in confined and dark locations. The head and flexible boom being IP67 rated enables them both to be submerged in water during operation (however the base unit and LCD cannot get wet! Caution!).

Included is a 2GB microSD card on which video and pictures can be recorded. These files can then be viewed on a TV with the included Video out cable or saved onto a PC via the USB cable included.

Dimensions	
Monitor	100 x 70 x 25mm
Camera Diameter	9mm
Camera handle	86 x 145 x 41mm
Flexible boom	1m

Specifications	
Photo & Video resolution	640 x 480
Video memory usage approx.	27MB/min - With 2GB microSD card approx.
Photo memory usage approx.	75kB - With 2GB microSD card approx.
LCD	3.5"
Wireless transmission frequency	2.4GHz
Lithium-ion battery in LCD	3hour Charge, 2 hour usage.

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
Inspection Camera	QC-8712	$249.00	$225.00	$215.00
Extension Shaft 2m	QC-8702	$79.00	$70.95	$66.95

The 3.5" LCD is detachable from the handle, which receives a wireless transmission from the camera. This enables more flexibility during operation, i.e. you can hold and manoeuvre the camera with one hand whilst keeping the LCD in full view in the other hand all the time. It makes operation easier.

- 2GB MicroSD card included (accepts up to 16GB)
- IP67 rated Camera and Flexible boom
- 4 white LEDs
- Three useful accessories - hook, mirror, magnet.
- Strong plastic carry case
- 4 x AA batteries required for camera handle
- USB cable included
- Video out cable included
- Power supply 5VDC 1A included

WEIGHING SCALES

Digital Luggage Scale

Some budget airlines are now charging $60 (yes, $60!) per kilo for excess baggage, and reducing the allowance to as little as 15kg. If you're going travelling, especially anywhere in Europe, an accurate luggage scale should be considered an essential. It costs less than a third of a kilo of Ryanair excess baggage charges and the scale itself weighs only 160g. It also takes two common AAA batteries you can get anywhere in the world.

Luggage not included

- Capacity: 40kg
- Backlit LCD
- Tare and auto-off
- Overload and low battery indication
- Size: 122(L) x 85(H) x 25(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7232	$19.95	$17.70	$15.70

100g Mini-Pocket Scale

Truly pocket-size scales. Ideal for laboratory, diets, clinical, jewellery or lapidary work. They'll measure up to 100 grams with excellent resolution and weigh in grams, carats, pennyweight or ounces. 1 x CR2032 battery included.

- 60 second auto power-off
- Tare function
- 0.01g resolution
- Storage bag included
- Dimensions: 72(L) x 40(W) x 10(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7258	$49.95	$44.90	$39.90

200g Mini-Scale with Backlight

Extremely accurate mini scale suitable for a variety of applications. The large LCD is backlit and a 200g calibration weight is included. Resolution is .01g and it weighs in grams, carats, ounces and pennyweight.

- 2 x AAA batteries included
- Dimensions: 93(L) x 52(W) x 20(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7259	$69.95	$62.95	$55.95

Weighing & Measurement Equipment

WEIGHING SCALES (CONTINUED)

1kg Digital Bench Scale

Precision 1kg electronic scale with resolution of 0.01g for when a high degree of accuracy is required. Weighs in grams, ounces, pounds, grains, carats, troy ounces and also supplied with a wind shield and a built-in bubble level to provide maximum accuracy. Particularly suited to calculating quantities as it counts pieces by weight. Powered by 4 x AA batteries (not included) or mains adaptor. Suitable for kitchen, lapidary, jewellery, reloading etc.

- Auto power-off after 60 seconds
- Automatic calibration
- Backlit LCD
- Tare and counting function
- Mains powered
- Dimensions: 175(W) x 75(H) x 260(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7264	$149.00	$133.95	$118.95

30kg Price Calculating Digital Bench Scale

Suitable for shops or markets where prices need to be calculated by weight. You simply input the unit price and the scale automatically calculates the total price, giving the vendor and the customer the same readout of total weight, unit price and total price from both sides of the scale. It can be operated or charged from the mains, or used on site from the built-in 4Ah battery.

- Stainless steel table
- Weighs up to 30kg
- Tare and cumulative function
- 1g resolution
- Dual LED display
- Dimensions: 310(W) x 120(H) x 360(D)mm

Note: Not for trade use.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7266	$149.00	$133.95	$118.95

VERNIER CALIPERS

Budget 150mm Digital Vernier Calipers

This carbon composite digital caliper is ideal for general use and situations where the cost of our precision stainless steel tool isn't justified. The digital display is calibrated in imperial and metric units with a corresponding vernier scale etched onto the caliper slide. While we wouldn't recommend you use this caliper to build the Space Shuttle, it's perfectly suited to the home handyperson who finds traditional calipers hard to read.

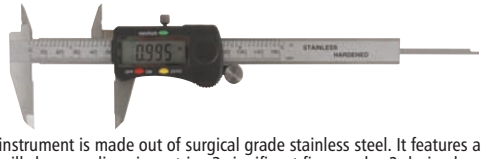
- 150mm measurement range
- 0.1mm resolution
- 8.3mm LCD character height
- 245mm Overall length (closed)
- Internal and external jaws
- Includes 1 x SR44 battery

TECH TIP!
BREAKTHROUGH PRICE NEW & IMPROVED

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2081	$9.95	$8.75	$7.75

150mm Digital Vernier Calipers



This precision instrument is made out of surgical grade stainless steel. It features a 5 digit LCD and will show readings in metric - 3 significant figures plus 2 decimal and in imperial - 2 significant figures and would you believe 3.5 decimal. (The fourth figure is either 0 or 5). The caliper can be zeroed at any point on the scale. A quality product at a fabulous price. Supplied with a sturdy clip-lock case with foam retainer and provision for spare battery.

- 0 - 150mm (0-6") range
- Resolution 0.01mm / 0.0005" (repeatability same)
- LR-44 battery powered (supplied)
- Battery life 12 months nominal
- Auto power off
- Operating temperature 0 - 40°
- Thumbscrew slide damper
- Case dimensions 250(L) x 90(W) x 27(D)mm.
- Converts millimeters to inches and vice versa

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2082	$29.95	$27.95	$23.70

FLOW RATE METERS

This range of products is suitable for use in the monitoring of water storage and distribution. With the popularity of rainwater harvesting, we expect these products to be quite popular.

Electronic Flow Rate Meter

Completely self-contained, this unit only measures 60 x 40mm and includes a full LCD information display. It's supplied with a reed switch and piezo alarm. It operates from 2 x AAA batteries and a battery holder is included. When used in conjunction with the FS-300AH Digital Flowmeter (Cat. ZD-1202), it will count down (in litres) from a predetermined volume, for example 500 litres. When 500 litres have gone through the flowmeter an alarm will sound. The alarm signal can be used to trigger another slave device. As it goes up to 99,500 litres, it could be used in larger-scale applications such as irrigation or just to let you know when it's time to clean a filter. It also reads flow rate, will remember data and operate in time mode.

- Dimensions: PCB/LCD: 60(L) x 40(W)mm

An unbelievably fantastic product! Full data sheet and manual on our website.

MORE INFO WEB

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ZD-1204	$39.95	$35.90	$31.90

Digital Flowmeter, Reed Switch 0.6-8L/minute

Similar to ZD-1200, except that it operates at its best in a lower flow rate environment. It provides DC output pulses from a Hall sensor (open collector) - this output can be used to switch logic displays or could be used as a water metering unit. The body and impeller are made from acetal and the impeller is 304 stainless steel which means it will should work best with low viscosity fluids.

Full data supplied with each unit.

NEW LOWER PRICE

Specifications	
Switching voltage	200VDC max
Switching current	500mA max
Switching frequency	500 Hz max
Operating time	0.5 ms.
Release time	0.2 ms
Connection	1/4" BSP
Dimensions	77(L) x 29(W) x 41(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ZD-1202	$29.95	$26.90	$23.70

Digital Flowmeter - Hall Type 1.5 - 25L/minute

With 1/2" BSP connections and 0 - 80°C temperature range, this unit could be used in hot water, (although we recommend operation in temperatures no higher than 45°C). It draws between 3 and 6mA over a supply range of 2.4 to 26VDC, making it ideal to be powered from a 12 volt battery if mains supply is not available. Simple DC output pulses in proportion to supply voltage and fluid flow make interfacing easy. The impeller is made from acetal and the shaft is stainless steel, so it will work with low viscosity fluids - we don't have any information available regarding its suitability for other fluids.

NEW LOWER PRICE

Data sheet on our website.

Specifications			
Supply voltage	2.4 - 26VDC	Flow rate range	1.5 - 25 L/min
Supply current	Typical 3mA, maximum 6mA	Max working pressure	1MPa
Output mode	Open collector	Fluid temperature	0 ~ 80°C
Output rise time	Typical 1 second (max 10 seconds)	Environment temp	-20 ~ 80°
Output falling time	Typical 0.3 seconds (max 1.5 seconds)	Dimensions	70(L) x 31(W) x 31(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ZD-1200	$29.95	$26.90	$23.70

HEAVY DUTY CURRENT SHUNTS

Placed in series with a high power circuit, these shunt bars allow you to measure high current draw without needing a high current ammeter. Heavy duty brass construction and hand calibrated, they include large terminals for connection of the main circuit cables and smaller terminals for connection to a meter. Suitable for use with a standard multimeter or panel meter you simply measure the millivolts across the shunt to display the current draw of the circuit. Models are compatible with many readily available power meters such as our MS-6172 Digital DC Power Meter.

Cat	Max Current	Voltage at Max Current	Shunt Resistance	Accuracy
QP-5410	5A	50mV	10mOhm	0.5%
QP-5412	50A	50mV	1mOhm	0.5%
QP-5415	100A	50mV	0.5mOhm	0.5%
QP-5417	200A	50mV	0.25mOhm	0.5%

NOTE: Care must be taken when using current shunts to measure DC circuits with common powered meters. Incorrect connection can cause a short circuit between the measuring terminal and the display power resulting in damage to the voltmeter. To avoid this issue the current shunt should be connected in series between the load and the power supply negative. Please see our website for more information.

MANUFACTURERS: WE HAVE A SHUNT SUPPLIER WHO IS IMPOSSIBLE TO BEAT FOR PRICES AND QUALITY. WE CAN SUPPLY CUSTOM SHUNTS IN QUANTITIES AS LITTLE AS 100 PIECES. CONTACT OUR WHOLESALE SUPPLIER FOR DETAILS

Diagram on web

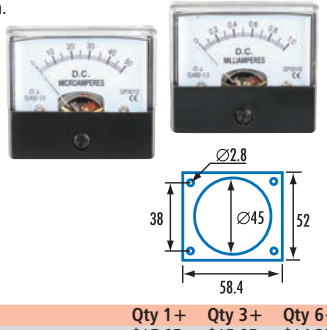
Max Current	Voltage at max current	Cat.	Qty 1+	Qty 5+	Qty 10+
5A	50mV	QP-5410	$12.95	$11.35	$10.35
50A	50mV	QP-5412	$12.95	$11.35	$10.35
100A	50mV	QP-5415	$19.95	$17.70	$15.70
200A	50mV	QP-5417	$19.95	$17.70	$15.70

PANEL METERS - MU45

Panel Meters Style MU45 - Moving Coil Type

Overall Dimensions: 58(W) x 52(H)mm.

- Mounting hole centre 38 x 38mm
- 45mm meter hole
- MU45
- Class 2.5



Cat.	Coil Resistance	Scale
QP-5010	200 Ω	0-1mA
QP-5012	3,000 Ω	0-50μA
QP-5013	0.05 Ω	0-1A
QP-5014	0.01 Ω	0-5A
QP-5015	0.005 Ω	0-10A
QP-5016	0.003 Ω	0-20A
QP-5020	20,000 Ω	0-20V
QP-5022	30,000 Ω	0-30V

Cat.	Qty 1+	Qty 3+	Qty 6+
Any of the above	$17.95	$15.95	$14.35

Self-Powered LED Panel Meters

Simple and easy to install self-powered meters with voltage or current display. The voltmeter has a simple 2-wire connection, and the current meter has 4-wire connection with an included current shunt. Auto zero calibration and easy to read red LED display. Give your next project a truly professional look. Perfect for automotive, caravan or 4WD use.

- Cutout size 42 x 23mm
- Easy installation
- Reverse Polarity protection
- Auto zero calibration
- Self powered

LED VOLTMETER 0 - 30V DC CAT QP-5586

Specifications	
Power requirements	8 - 30VDC
Measurement range	0 - 30VDC
Maximum display count	999
Sample frequency	400mS

LED AMMETER 0 - 50A DC CAT QP-5588

Specifications	
Power requirements	8 - 30VDC
Measurement range	0 - 50VDC
Maximum display count	1999
Sample frequency	400mS

Current shunt included
Note! When connecting the ammeter QP-5588 it is essential that the wiring instructions provided with the product are followed, or the meter may be destroyed.

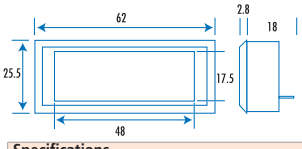
Cat.	Qty 1+	Qty 5+	Qty 10+
QP-5586	$24.95	$22.35	$19.70
QP-5588	$39.95	$35.90	$31.90

PANEL METERS

Common Specifications for QP-5570, QP-5580 & QP-5585:	
Polariy	Automatic (-) for negative value
Decimal point	User selectable
Input	Analogue
Full scale range	200mV
Configuration	True differential input and reference
Impedence	10MΩ
Conversion rate	2.5 per second
Zeroing	Automatic
Operating temp	Standard 0 to 50°C

3.5 Digit LCD Panel Meter

- Attractive modern bezel
- Snap retaining into panel
- Shallow depth
- 0.1" launcher connections
- See above for additional specifications



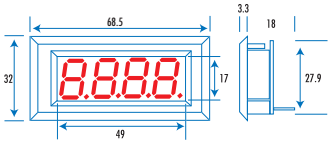
Specifications	
Type of display	LCD
Digits	3 1/2 digits (1999) 12.7mm figure height
Power	5V powered
Over range	Display flashes "1"
Accuracy	±(0.1%rdg.+1dgt.)
Connection	13 pins
Size	62(W) x 25(H) x 15(D)mm
Panel cutout	60.5(W) x 24(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
QP-5570	$27.95	$24.95	$22.35

3.5 Digit LED Panel Meter

- Surface mount construction for reliability
- 0.1" launcher connections
- Brightness matched superbright LEDs
- Attractive bezel with mounting clips
- 5V powered, TTL compatible common ground
- See above for additional specifications



Specifications	
Type of display	LED, red super bright
Digits	3 1/2digits (1999) 14.2mm figure height
Power	5V powered, common ground
Over range	Display blinks
Accuracy	±(0.1%rdg.+2dgt.)
Connection	10 pins
Size	68.5(W) x 33(H) x 16(D)mm
Panel cutout	64(W) x 28(H)mm

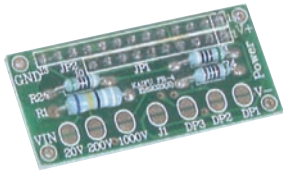
1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
QP-5580	$29.95	$26.90	$23.70

Add On Board For QP-5570/80

This add on board makes it easy to set the range and decimal point on our QP-5570 or 80 panel meters. The ranges can be permanently set with a solder bridge or wired to a switch for selectable ranges.

- No 200mV range on QP-5580
- Cannot be used in applications where voltage to be measured also powers DPM.



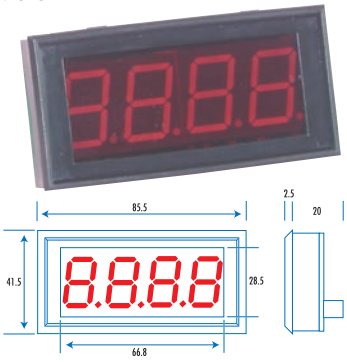
Cat.	Qty 1+	Qty 5+	Qty 10+
QP-5575	$9.95	$8.75	$7.75

Digital Panel Meters & Readouts

PANEL METERS (CONTINUED)

3.5 Digit Jumbo LED Panel Meter

This is not just a digital display, but a fully functional high impedance digital panel meter that only requires power to operate. It will measure voltages from 200mV to 500VDC (jumper selectable) and has a maximum count of 1999. The module is suitable for a host of applications and can be used as a voltmeter or adapted for use as a current meter, thermometer etc. The decimal point location can be selected with a jumper and the module uses an easy "plug-in" fixing method. The meter shares a common ground with the voltage being measured.



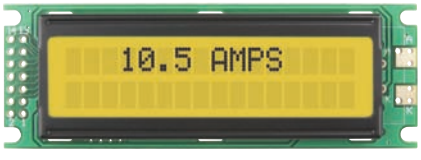
Specifications	
Type of display	LED
Digits	3.5 Digits (1999) 20.3mm figure height
Power	5VDC, common ground, 60mA typical
Over range	"1" shown on display
Accuracy	±0.5%
Size	85(W) x 42(H) x 25(D)mm
Panel cutout size	84(W) x 41(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QP-5585	$34.95	$31.45	$27.90

LCD MODULES

LCD Panel 2 Line 16 Character - Wide Viewing Angle



QP-5517 Without BACKLIGHT

QP-5518 With BACKLIGHT

NEW LOWER PRICE

Actual stock will vary from photographs

Specifications	QP-5517 / QP-5518
Type	2 line LCD
Characters	16 x 2 lines
Character size	4.89 x 2.78mm
Viewing angle - vertical	Sym 0 condition: CR>=2°, Min -10° Max 40°
Viewing angle - horizontal	Sym 0 condition: CR>=2°, Min -30° Max 30°
Supply voltage for logic	SYN: VDD - VSS Min 4.5V Typ 5V Max 5.5V
Other mechanical data	STN, yellow green, 1/16 duty, 6 o'clock
Module dimensions	85(W) x 30(H) x 13.2(D)mm
Viewing display area	65(W) x 16(H)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Without Backlight	QP-5517	$14.95	$13.35	$10.35
With Backlight	QP-5518	$19.95	$17.70	$13.70

RCD (Residual Current Device) Timing Tester

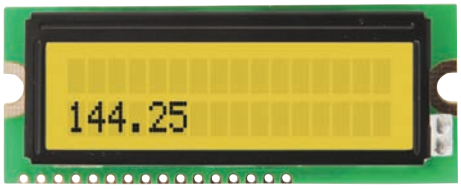
Makers Name: Phillip Webb
Location: South Australia

This circuit was devised to provide a low cost instrument to test and display the trip time of RCDs. It uses a Picaxe 18M2 to perform all the necessary control and timing functions with a 2 line LCD display for results and an opto isolated triac circuit to provide the test leakage current.

For more details scan the QR code or go to www.jaycar.com.au/makers

LCD Panel 2 Line 16 Character Compact with Backlight & SIL Connections

This compact LCD module has 96 inbuilt ASCII characters as well as 92 special letters and 8 custom characters, which can be displayed on a 16 character by 2 line screen. It will hold the current input on the display using its own built in memory, making it easy to drive. Connections via single in line solder pads with an independent backlight.



Specifications	
Type	2 line LCD
Characters	16 x 2 lines
Supply voltage	5VDC
Power Supply Current	2mA
Duty	1/16
Module dimensions	66(W) x 26(H) x 12(D)mm
Viewing display area	51(W) x 14.8(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QP-5512	$19.95	$17.70	$15.70

Dot Matrix Liquid Crystal Display Modules Alphanumeric - Large Display

Large character size LCD. Can be viewed from further distances and also handy when the panel needs to be mounted behind Perspex for protection.

Actual stock will vary from photograph

Specifications	
Type	Alphanumeric, 2 line LCD
Characters	16 x 2 lines
Character size	9.7 x 4.9mm
Viewing angle - vertical	Sym 0 condition: CR>=2°, Min -10° Max 40°
Viewing angle - horizontal	Sym 0 condition: CR>=2°, Min -30° Max 30°
Supply voltage for logic	SYN: VDD - VSS Min 4.5V Typ 5V Max 5.5V
Other mechanical data	STN, yellow green, 1/16 duty, 6 o'clock
Module dimensions	122(W) x 44(H) x 13.2(D)mm
Viewing display area	99(W) x 24(H)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 10+	Qty 25+
	QP-5520	$24.95	$22.35	$17.35

Dot Matrix Liquid Crystal Display Modules Alphanumeric

Compact Liquid Crystal Diode module with ASCII (96 characters), Special Letters (92 characters) and Custom Letters (8 characters). A two line screen displays up to 16 characters at a time and the module will hold the current display in its own inbuilt memory.

Specifications	QP-5515 & QP-5516
Type	Alphanumeric, 2 line LCD
Characters	16 x 2 lines
Character size	4.89 x 2.78mm
Viewing angle - vertical	Sym 0 condition: CR>=2°, Min -10° Max 40°
Viewing angle - horizontal	Sym 0 condition: CR>=2°, Min -30° Max 30°
Supply voltage for logic	SYN: VDD - VSS Min 4.5V Typ 5V Max 5.5V
Other mechanical data	STN, yellow green, 1/16 duty, 6 o'clock
Module dimensions	85(W) x 30(H) x 13.2(D)mm
Viewing display area	65(W) x 16(H)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Without Backlight	QP-5515	$15.95	$14.35	$10.95
With Backlight	QP-5516	$17.95	$15.95	$12.35

We have some fantastic new tools this year. Top of the list is a new Class of Tools - Watchmaker's Tools - see page 43. Now you will be able to dismantle any watch without wrecking it!

We also have two fantastic sheet metal benders - a Vice Mounted (page 36) and Hand Held (page 40). On this page to the right you will see our extremely low-cost mains powered Hand-Drill. This drill is ideal for the weekender, or as a gift to a son or daughter moving out of home, or just as a spare. It works well and mates up with the Drill Stand also shown on this page. Oh, & take a look at the micro-miniature Tap & Die set on page 48.

You can depend on Jaycar for finding tools that you just can't seem to find in mainstream hardware stores.

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ELECTRIC SCREWDRIVER

Electric Screwdriver - 18 bits

NEW 2013

Features a comfortable moulded grip, reverse and forward modes, an LED for those hard to see spots, and carry pouch. The drill has three adjustable configurations from the traditional gun style to a cylindrical shape for applying extra pressure on stubborn screws or bolts. Also comes with Phillips, flat, torx and hex bits suitable for most applications.

- Torque: 2.5Nm
- Voltage: 4.8V
- Drill time: 40 mins
- Included bits: Pozi (PZ0, PZ1,PZ2,PZ3)
- Philips (PH0,PH1,PH2,PH3)
- Torx (T10,T15,T20, T25)
- Hex (H3,H4)
- Bit Extender
- Mains charger included
- Dimensions: 270(L) x 45(W) x 37(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2497	$19.95	$17.70	$15.70

102 Piece Electric Screwdriver Kit

NEW 2013

Features a powerful X torque electric driver and a massive array of stainless steel bits that are sure to get the job done. All packaged in a tough aluminium carry case that will hold and protect your screwdriver, mains charger, and all the bits.

- Screwdriver dimensions: 144(L) x 135(H) x 40(W)mm
- Case dimensions: 250(L) x 153(H) x 88(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2491	$39.95	$35.90	$31.90

350W 240VAC Electric Drill

NEW 2013

A powerful 240V electric drill suitable a variety of tasks around the house or on the job. Features a forward/reverse switch, lock setting, and moulded plastic grip. You can also adjust the speed of the drill when the full power is not required. Will accommodate bits up to 10mm and includes a handy belt clip.

- Mains powered
- Cable length: 1.8m
- Dimensions: 250(L) x 190H) x 65(D)mm

NOTE! ECONOMICAL!

Cat.	Qty 1+
TD-2493	$19.95

Universal Drill Press Stand

NEW 2013

Convert your standard power drill or rotary tool into a drill press with this adjustable stand. Substantially cheaper than purchasing a full drill press, the stand still has all the necessary features expected in a full size press.

It includes separate adjustments for limiting press depth and drill height so you can change drill position with minimal risk of over-drilling into the stand. The drill collar can be adjusted to suit a variety of tools. Heavy duty cast metal base and frame provides excellent stability.

- Allen key supplied for tightening drill collar
- Drilling depth: Up to 60mm
- Maximum collar diameter: 43mm
- Minimum collar diameter with insert: 35mm
- Dimensions: 497(H) x 350(W) x 160(D)mm

Note: Drill not included

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2463	$29.95	$26.90	$23.70

Holding, Folding & Cutting

Drill Assistant with Laser Leveller

Drill holes in walls easily, on the level and with no mess. This drill assistant uses vacuum suction to attach to virtually any wall without leaving marks, and features float levels and a laser to ensure the hole you are about to drill is in the right position. There's even a compartment that captures the dust to avoid it falling to the floor.

- Vacuum Suction
- Built-in Laser
- Built-in Level
- Drill guide
- Dust catcher

NEW 2013

- Dimensions: 238(L) x 100(W) x 48(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2151	$19.95	$17.70	$15.70

VICE

Pin Vice

A handy addition to any tool case. All metal construction with two internal collars. The head rotates freely making it ideal for drilling delicate PCBs or plastic cases.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1772	$13.50	$11.95	$10.70

Mini Bench Vice

This sturdy lightweight vice will clamp to surfaces up to 1" thick and hold material up to 2" thick. This handy tool is ideal for hobby work or as a light duty workshop bench vice. Made from strong, lightweight aluminium that won't rust or corrode, the vice will be a useful addition to anyone who needs a third hand!

- Vice jaws are 63.5mm wide and will open to more than 50mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1764	$14.95	$13.35	$11.70

270° Rotation Clamp Vice

Rotate the head through 270° to make your work easier. The base will clamp to any bench or table up to 55mm thick and the 40mm jaws will take a job up to 58mm in size. Once in position, the head is easily fixed in position with a quick release lever.

- Base: 115(W) x 94(D)mm

NEW LOWER PRICE

RELATED PRODUCT...
See page 40 for Metal Bending Pliers.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1769	$19.95	$17.70	$15.70

Vacuum Bench Vice - 75mm Jaw

This quality vacuum vice is made from hard-wearing diecast aluminium. The vice consists of three-pieces; a vacuum base, ball joint clamp and a 75mm opening jaw with removable soft rubber jaw covers. The 'V' grooved jaws are ideal for holding cylindrical and irregular shapes, making it well suited to small bench jobs such as model building, jewellery making and general PCB/chassis work. The multi-positional ball swivel allows the jaws' working position to be varied through a full 360° axis.

- Stands approximately 160mm tall.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1766	$29.95	$26.90	$23.70

Sheet Metal Bender - Pan Brake Style (Vice Break)

This unit sits in the jaws of your bench vice (100mm+ recommended). It retains itself in the vice with strong recessed magnets. One half consists of the familiar blade that bends the sheet metal. The other half in the 90 degree recess that the blade pushes into. By carefully positioning the sheet, you can perform a perfect 90 degree bend as good as a workshop! The blade is segmented, just like a workshop pan brake, so that you can make partial bends. With a little practice, you will be able to fabricate brackets, small boxes & other metal assemblies like a pro.

NEW 2013

Warning: This unit is not particularly cheap. It is, however, very well made. It is cast steel with tool steel pressing components. You need it to be sturdy, otherwise it would break or flex. It will, literally, last a lifetime.

Will fold sheet up to 125 wide, however there are 3 x press segments 2 x 50mm, 1x25mm and these are independently removable by Allen head set screws. Depending on the width of the material you could easily bend steel strips up to 4mm thick and 25mm wide. Aluminium should not be a problem up to 4mm thick & 100mm wide, depending on your vice.

- Dimensions: 125(L) x 30(W)mm both halves

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1763	$49.95	$44.90	$39.90

NIBBLING TOOLS

Nibbling Tool

Will cut any shape out of aluminium, plastic, copper and other unhardened metals up to 18 gauge. Tool is designed to fit into the palm of your hand for easy use, simply drill a 1/4" hole to start.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1768	$14.95	$13.35	$11.70

Adel Nibbling Tool

The original and best. The Adel nibbling tool has been around for years and for good reason. It's still the best hand nibbler going around and is ideal for chassis-bashing and all sorts of hobby applications. Cut, notch or trim simple or complex shaped holes in plastics, laminates, leather or metal.

NOTE! MADE IN USA

- Capacity:
- Mild steel: 1.2mm
- Aluminium: 1.6mm
- Plastics: 2mm
- Spare punch use TH-1767
- Made in USA.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Nibbling Tool	TH-1765	$69.95	$62.95	$55.95
Spare Punch	TH-1767	$39.95	$35.90	$31.90

HOBBY TOOLS

110 Piece 12V Rotary Tool Set

Drill, saw, sand, polish, carve or grind in your workshop or out on the road. 110+ bits and attachments cover every possible task you'll ever need. The rotary tool is rated for 12V at 12,000 RPM. Ideal for hobby or professional use.

- Rotary tool: 12VDC, 16W, 12,000 RPM

Attachments:
- Sanding belts 3 x 6mm
- 5 x Sanding Bands: 1/4" x 1/2"
- 6 x Sanding bands: 1/2" x 1/2"
- 4 x Collets: 1.6mm-2.3mm-3.2x2
- 1 x Dressing Stone 1"x 3/8"
- 1 x Felt Wheel Pointed: 3/8" x 3/4"
- 4 x Felts wheels
- 2 x Rubber Emery Wheel
- 4 x Felt Wheels: 1/2" x 1/4"
- 20 x Sand papers
- 2 x Felt Wheels: 1'x1/4"
- 1 x Cloth wheel 1"x 1/8"
- 2 x sanding shanks: 1/4"x1/2", 1/2"x1/2"
- 4 x HSS Twist drills: 1.6mm x 2, 2.3mmx 2
- 3 x Mandrels For Wheel
- 5 x Diamond cutters
- 2 x HSS cutter
- 9 x Grinding wheels with Shank
- 3 x Brush
- 10 x Cutt off wheels
- Heavy duty: 0.8mm
- 20 x cut off wheels regular: 0.4mm
- 1 x Polishing compound
- 1 x mini engraver

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2451	$29.95	$26.90	$23.70

210 Piece Rotary Tool Kit with Flexible Shaft

Flexible shafts are particularly useful for porting heads in engines, but have a multitude of other applications where you need to get into a tight space or get more control of the bit. The kit consists of a powerful 32,000 RPM rotary tool that you can use with numerous attachments in the usual way, plus a 1m long flexible shaft. The flexible shaft attaches in seconds to give extra versatility. Suitable for modelmaking, automotive, workshop, art, jewellery or sculpture.

Attachments:
- Sanding arbours
- P80 sanding belts
- Sanding discs
- Collets: 2 x 3/32", 2 x 1/8"
- Drill bits: 2 x 1/16", 2 x 3/32"
- Grinding stones: 20 x 4mm wheel, 10 x 4mm wheel, 15 x 10mm cylinder, 12 x 10mm cylinder, 7 x 4mm cylinder, 20 x 10 bullet, 11 x 8mm tapered bullet,
- Tungsten carbide burrs: 3mm straight, ball profiles
- Diamond coated burrs: 4mm ball, 2mm fine cone taper, 3mm pinecone, 4mm cone
- Polishing wheels: 12, 25mm
- Steel, fibre wire brushes
- 30mm cut-off wheels
- 20 x 4mm grinding wheels
- Paint-removing wheel
- 3/8" collet spanner, arbours, shafts, polishing compound.

Rotary Tool	
Speed	10,000 - 32,000 RPM
Power	135W
Size	210(L) x 52(Dia)mm
Shaft length	1000mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2459	$39.95	$37.45	$31.90

Micro Engraver

Engrave your valuables for security or insurance. The tiny diamond coated tip spins at 10,000 RPM so you can personalise tools, sporting gear, toys, security ID on valuables etc. Engraves glass, ceramics, metals and plastics. Batteries and case included.

- Tip is replaceable.
- Dimensions: 160(L) x 15(Dia)mm
- Replacement tip sold separately Cat TD-2469

	Cat.	Qty 1+	Qty 3+	Qty 6+
Micro Engraver	TD-2468	$19.95	$18.70	$15.70
Spare Tip	TD-2469	$6.95	$6.50	$5.50

Remote Control Tool Box

Makers Name: Chris Scarfe
Location: Victoria

A tool box with something all innovative project builders will have, so why not build a remote control tool box with lid and drawers that are opened and closed by a handheld remote control. Read the full description online.

For more details scan the QR code or go to www.jaycar.com.au/makers

ULTRASONIC CLEANERS

Domestic Ultrasonic Cleaner

Suited to domestic use this ultrasonic cleaner cleans all your watches, jewellery, fountain pens, dentures, razor heads, printer heads, small silverware and small machined parts. Mains powered and easy to use. Fill the tank with water, add a mild cleaning solution and set the timer. The LCD tells you how long to go and the timer has 5 settings from 90 seconds up to 7 minutes 30 seconds.

Specifications	
Tank volume	550ml
Power consumption	50W
Time settings	1 min 30 sec 3 min 4 min 30 sec 6 min 7 min 30 sec

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YH-5408	$79.95	$74.95	$63.95

Ultrasonic Cleaner - Commercial

If you've been after an industrial ultrasonic cleaner but have been frightened off by the price, then this is for you! its massive 100W transducer produces millions of microscopic bubbles that are small enough to penetrate the most microscopic of crevices, cleaning them thoroughly. Use this cleaner for automotive injectors, jewellery, glasses, circuit boards and more! The unit features a large LED display with real time countdown. You can also set the cleaning time in 5 minute increments.

Specifications	
Power supply	240VAC 50/60Hz
Power	100 Watts
Tank capacity	3L
Tank dimensions	265 (L) x 160(W) x 235(H)mm
Unit dimensions	265 (L) x 160(W) x 245 (H) mm (including lid & basket)
Supplied with	1 x 1.5m IEC mains lead 1 x 250(L) x 155 (W) x 90(H)mm stainless steel basket 1 x stainless steel lid

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YH-5410	$399.00	$359.00	$319.00

Gluing, Screwing & Cutting

GLUE GUNS

Mini Glue Gun - 30W

A glue gun is a handy tool to have around the house. It's fast, easy and simple to use with trigger controlled glue feed. Suitable for toys and models, decorations, furniture, woodwork, cardboard, etc.

- Mains powered
- 30W
- Requires 7mm diameter glue sticks (2 supplied)

Note: For intermittent use only. Not for production use

	Cat.	Qty 1+	Qty 3+	Qty 6+
Mini 30W	TH-1997	$12.95	$11.35	$10.35

Large Glue Gun - 100W

Great for quick and easy low stress repairs to timber, cardboard, paper and many household materials. It is fast, easy and simple to use with trigger controlled glue feed.

- Mains powered
- 100W
- Requires 12mm diameter glue sticks (2 supplied)
- Note: For intermittent use only. Not for production use

	Cat.	Qty 1+	Qty 3+	Qty 6+
Large 100W	TH-1999	$14.95	$13.35	$11.70

Glue Sticks

FOR MINI GUN

To suit the mini glue gun.
Dimensions: 7.4mm dia. x 100mm long

- Suits TH-1997 mini gun

FOR LARGE GUN

Dimensions: 11mm diameter x 100mm long.

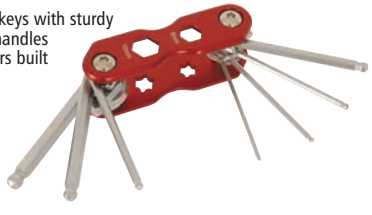
- Suits TH-1999 gun

		Cat.	Qty 1+	Qty 3+	Qty 6+
Pkt 6	For Mini Gun	TH-1991	$3.95	$3.45	$3.15
Pkt 6	For Large Gun	TH-1995	$4.95	$4.45	$3.90
Pkt 50	For Mini Gun	TH-1994	$9.95	$8.75	$7.75
Pkt 45 approx.	For Large Gun	TH-1996	$17.95	$15.95	$14.35

ALLEN KEYS

Folding Torx/Allen Key Sets

Handy folding sets of Torx or Allen keys with sturdy anodised aluminium handles. The handles have M8, M10, E8 and E10 spanners built into them. Never lose a bit again.

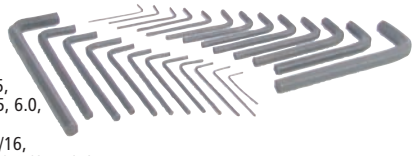


	Cat.	Qty 1+	Qty 3+	Qty 6+
7 Piece Imperial	TD-2174	$5.95	$5.50	$4.75

25 Piece Allen Key Set

25 different size Allen keys in a plastic wallet. Both metric and imperial sizes.

- Metric: 1.27, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 8.0, 10.0mm
- Imperial 3/8, 1/4, 7/32, 3/16, 5/32, 9/64, 1/8, 7/64, 3/32, 5/64, 1/16".



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2052	$11.95	$10.70	$9.50

KNIVES

Mini Folding Knife

Handy pocket-sized folding utility knife. Lockback design with disposable blades and a thumb button for one-handed opening. Keep one on your keyring.

- Quick-change blade
- Anodised aluminium handle
- Dimensions: Closed 64mm, open 98mm
- Pk 5 spare blades: TH-1912

NOTE: Not for sale to under 18 year olds.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Knife	TH-1911	$9.95	$8.75	$7.75
Pk 5 Blades	TH-1912	$3.95	$3.45	$3.15

14 Piece Precision Hobby Knife Set

Handy hobby tool set comprising of 10 different blades, handle, 70mm long tweezers, 90mm long flat screwdriver and vernier calipers, which measure up to 81mm (3.1inches).

Blades included:
1 x #1
1 x #4
1 x #7
1 x #10
3 x #11
2 x #12
1 x #17

- Case dimensions: 170(W) x 85(W) x 35(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Hobby Knife Set	TH-1916	$14.95	$13.35	$11.70
Spare Blades - 10 Per Set	TH-1917	$5.95	$5.25	$4.75

MULTI-TOOLS

7 in 1 Multi-Function Pocket Tool

Tackle any obstacle and task with this 7 in 1 Multi-Function Pocket Tool, the perfect addition to any camping trip or climbing expedition. With 2 knives, 2 can/bottle openers, spring-loaded scissors, a standard screwdriver and a trusty corkscrew, this great tool is the answer to all your outdoor needs. The tool locking mechanism guarantees great results and its lightweight aluminium frame makes it both sleek and strong.

- Dimensions: 99(L) x 23(W) x 19(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1924	$9.95	$8.75	$7.75

Survival Knife with LED Torch/Fire Starter/ Belt Cutter/Window Breaker

Built for extreme adventures, the knife is crafted using Grade 420 stainless steel for maximum durability. A liner lock system allows you to effortlessly extract the blade with one hand, leaving the other one free. Use the serrated edge to cut with speed or the straight edge to cut with precision. The built-in LED light lets you see in the dark while the magnesium alloy fire starter lets you start your own campfire. If you find yourself trapped inside your own vehicle, use the belt cutter and window breaker for a quick escape.

- Grade 420 stainless steel construction with anodised aluminium handles
- Liner lock system
- Blade features straight and serrated edges
- Built-in LED lighter
- Magnesium alloy fire starter
- Belt cutter
- Window breaker
- Dimensions:
  Open: 208(L)mm
  Closed: 126(L)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1925	$14.95	$13.35	$11.70

12 in 1 Multi-Function Tool with Carry Pouch

Versatile and incredibly strong. Features an all aluminium frame and a locking mechanism that ensures the tool stays open until the job is completed. Its sleek and lightweight design enables you to take it anywhere, and it is a great alternative to carrying additional full-sized tools. Includes a file, bottle/can opener, saw, scissors, small and large knife, 3 sized standard screwdrivers, a Phillips head screwdriver, long nose pliers and an LED torch. Complete with a nylon pouch and a snap button loop for easy attachment to additional gear, the 12 in 1 Multi-Function Tool is a must have for any explorer.

- Dimensions: 99(L) x 43(W) x 18(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1926	$24.95	$22.35	$19.70

This colour pricebar denotes a Clearance item - check for specials.

SIDE CUTTERS

135mm - ESD Safe Side Cutters

Specifically for ESD work. High quality Japanese designed, Italian manufactured cutters especially for static-sensitive applications.

- 135mm long

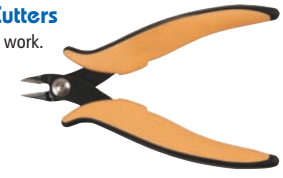
CS FUJIYA

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1922	$29.95	$26.90	$23.70

127mm - Precision Angled Side Cutters

Precision side cutters that are ideal for fine PCB work. They will easily cut leads flush with the board's surface. The cutters are made from quality tool steel and have soft padded handles that are spring loaded for comfortable long term use.

CS



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1897	$11.95	$10.70	$9.50

115mm - Stainless Steel Side Cutters

High quality small side cutters that have thick (2mm) blades and comfort soft plastic handles which are spring loaded.

- 115mm long

SS

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1890	$13.95	$12.35	$10.95

110mm - Fujiya Precision Side Cutters

Beautifully engineered side cutters for the discerning tradesman. These cutters feature high quality tool steel construction and are perfect for cutting super fine wire as well as general workshop use. They aren't just good to look at, they are tough as well and can cut steel wire up to 1.6mm without harm. The insulated handles are spring loaded for effortless use.

- 110mm long
- Blade hardness: Rockwell C Scale 57~61
- Soft grip handle

TECH TIP!
JAPANESE MADE

CS FUJIYA

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-2332	$29.95	$27.95	$23.70

1500mm - Carbon Steel Precision Side Cutters

These cutters are made from the same high carbon steel as our TH-1885 long nose pliers and are designed for sharp cutting in precision wiring. They have insulated soft-touch handles and a coil return spring for fatigue free use.

ENGINEER CS

TECH TIP!
JAPANESE MADE

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1891	$34.95	$32.90	$27.90

TECH TIP

WHEN STAINLESS STEEL IS NOT THE BEST

We are big fans of Stainless Steel. We love it in tools, fasteners & many building products. It is not, however, always the best material. Top chefs will tell you, for example that the best knives are not stainless. They are made out of carbon steel. Why? Carbon steel is far harder & tougher than stainless. The problem of course is that carbon steel will rust if not maintained. In our search for the best hand-tools we have decided to introduce two very high quality Japanese-made products made out of carbon - steel. They are not cheap but they are for the professional user whose time is money. Like carbon steel knives, rust is not a problem if used constantly. They will, however, pay you back every day because they will stand up to heavy wear & tear. For those who have only occasional use for hand tools, we sincerely recommend stainless steel products.

LONG NOSE PLIERS

150mm - Precision Long Nose Pliers

Precision, slim line long nose pliers that are ideal for working in confined areas. They have serrated jaws so you can get a firm grip on the item you're holding. The pliers are made from quality tool steel and have soft padded handles that are spring loaded for comfortable long term use.

CS

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1887	$11.95	$10.70	$9.50

145mm - Stainless Steel Long Nose Pliers

The partner to our TH-1890 stainless steel cutters. These have half round smooth gripping jaws perfect for adjusting and bending components, picking up that dropped nut, etc. Comfortable soft plastic handles which are spring loaded.

SS

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1893	$13.95	$12.35	$10.95

110mm - Fujiya Precision Long Nose Pliers

These are the perfect companion for our TH-2332 precision side cutters and are made to the same exacting specifications. The insulated handles are spring loaded for effortless use.

- 110mm long
- Blade hardness: Rockwell C Scale 53~57
- Soft grip handle

TECH TIP!
JAPANESE MADE

CS FUJIYA

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-2334	$29.95	$27.95	$23.70

125mm - Carbon Steel Precision Long Nose Pliers

These quality pliers are made in Japan from the same high carbon steel that is used to make professional chef's knives. The pliers feature serrated jaws and a box joint to provide a precise action and strong grip. The coil spring ensures smooth, fatigue-free use. Insulated soft touch handles.

ENGINEER TECH TIP!
JAPANESE MADE
CS

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1885	$34.95	$31.45	$27.90

CUTTERS & PLIERS SET

Stainless Cutter / Pliers Set

Set of five 115mm cutters and pliers for electronics, hobbies, beading or other crafts. Stainless steel with soft ergonomic grips.

Contents:
- Flush cutters
- Long nose pliers
- Flat nose pliers
- Bent nose pliers
- Round nose pliers

SS

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1812	$29.95	$27.95	$23.70

TECH TIP!
To avoid confusion we have put a small logo "SS" nominating which tool is made out of "stainless". "CS" means carbon steel.

Hand Tools

PLIERS & CUTTERS

170mm (6.5") Long Nose Pliers - Insulated

You can see the quality German design in these strong and attractive pliers. They are drop forged to the same standards as the other tools in the range and have the same cutting capacity - up to 4.0mm electrical wire. A very attractive tool with comfortable handles. The high quality manufacture means they can take the work and last for ages. This could be the last pair of long nose general purpose pliers you need to buy!

- 170mm / 6.5" long.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1986	$16.95	$14.95	$13.35

180mm (7") Combination Pliers

Strong, Tough & Reliable.
These high quality drop forged alloy steel pliers are a professional tool and manufactured to the rigid German DIN standards for electrical safety & mechanical strength. They are for serious tradesmen who need a quality tool. These pliers will cut hard (piano wire) wire up to 1.6mm & soft (annealed copper, aluminium silver etc,) up to 4.0mm. Non slip double inset handles are comfortable to hold.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1984	$19.95	$17.70	$15.70

160mm (6") Side Cutters - Insulated

This drop forged alloy tool is made to the same standards as our TH-1984 combination pliers. It is just as tough and will also cut piano wire up to 1.6mm. This is a quality tool and designed for dedicated wire cutting. It has comfortable double inset handles.

- 160mm/6" long.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1985	$17.95	$15.95	$14.35

PLIERS

175mm - Screw Removing Pliers

This tool is basically designed to remove, by brute force, a hopelessly stripped out head of any type of small non-countersunk screw. The secret is an oval-shaped serrated hole in the end of the plier. You place the plier over the head of the screw, grip and rotate the plier. This system applies a lot more torque to the head of the screw than a drill bit ever could. It's reminiscent of the plier that a dentist used to extract your tooth!!Its Japanese manufacturer has provided a beautifully made and finished product.Suitable for any screw in the range of 2.0 to 5.0mm or so, although it will work on larger screws to lesser effect.

- 175mm long
- Soft grip handle

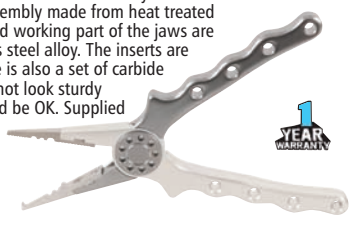
TECH TIP!
JAPANESE MADE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-2330	$24.95	$23.35	$19.70

Aluminium/Stainless "Fishing" Pliers

These are the classiest looking pliers you will ever see. They feature a CNC-machined body and inner jaw assembly made from heat treated and hard anodised aluminium. The hard working part of the jaws are inserts made from a hardened stainless steel alloy. The inserts are held in place by machine screws. There is also a set of carbide cutter inserts but we feel that they do not look sturdy enough to cut wire. Fishing lines should be OK. Supplied with pouch and lanyard.

- Pliers measure 195mm long overall



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1921	$39.95	$37.45	$31.90

75mm (3") Sheet Metal Bending Pliers

Bend sheet metal easily with this heavy duty offset hand tool. Features strengthened rivets and dual layered pitted handle for a firm grip.

- Jaw width: 75mm
- Jaw depth: 30mm
- Overall length: 210mm
- Thin gauge aluminium, brass, etc. ok. Not suitable for steel over 0.8mm thick.

RELATED PRODUCT...
See our Spot Face Cutter on page 59

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-2336	$24.95	$22.35	$19.70

SHEARS

180mm (7")High Quality Stainless Steel Electrical Shears

Slice through soft electrical cable with ease. These precision spring loaded stainless steel electrical shears will cut soft wire up to 22sqmm and make light work of cable ties, heatshrink, light hook-up wire and cable braid etc. The shears feature insulated handles and a convenient, thumb operated lock to keep them closed when not in use. Ideal for cutting ribbon cable

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1757	$7.95	$6.95	$6.25

140mm (5.5") High Quality Electrical Shears

These shears offer impressive cutting ability with finely honed and serrated blades. Great for cutting insulation, heatshrink, spaghetti and light duty hook-up wire. These shears feature insulated handles.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1758	$6.95	$6.25	$5.50

165mm (6.5") Stainless Steel Cable Shears

This set of cutters has a cutting capability of up to 10mm cable. It is constructed from stainless steel and has a hardened long-life cutting edge. For safety and ease of storage, it can be locked in the closed position.

- Stainless Steel
- Lightweight
- Lockable.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1898	$19.95	$17.70	$15.70

3D Scanning Tools

Makers Name: Daniel McEwen
Location: Victoria

This device consists of 2 smaller projects - first a 5mW laser which rotates vertically, projecting a line onto an object and the second is a platform on which an object sits and rotates at specific angles controlled by a computer. A high definition webcam is used to record the laser line. It takes multiple scans at different angles, ending up with a 3D file of the object. An Arduino Nano was used for the microcontroller. This device was built to impart real life models into computer games.

For more details scan the QR code or go to www.jaycar.com.au/makers

SCREWDRIVERS

High Quality Jeweller's Screwdrivers

Each screwdriver has a rotating top, larger handle and a strong chrome vanadium tip providing a comfortable finger/palm rest and an easily turned body. These look very similar to those expensive German ones.

Type	Cat.	Qty 1+	Qty 3+	Qty 6+
1.0mm Slot Tip	TD-2060	$3.50	$3.15	$2.75
1.5mm Slot Tip	TD-2061	$3.50	$3.15	$2.75
2.0mm Slot Tip	TD-2062	$3.50	$3.15	$2.75
#000 Phillips	TD-2064	$3.50	$3.15	$2.75
#00 Phillips	TD-2065	$3.50	$3.15	$2.75

Jeweller's Screwdriver Set

All metal precision screwdrivers for watchmakers, jewellers, modelmaking or just fixing the sunnies. Set of six.

- Slotted: 1.0, 1.2 & 1.6mm
- Phillips: #00, #0 & #1

RELATED PRODUCT...
See Watch Repair Kits on page 43

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2023	$9.95	$8.75	$7.75

5 Piece Torx Screwdriver Set

Easy to use colour coded Torx screwdrivers in a plastic case. Each screwdriver has a swivel head for easy use.

Blade length is 20mm and torx sizes are T6, T7, T8, T9 & T10.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2070	$12.95	$11.35	$10.35

6 Piece Precision Tamperproof Torx Set

A quality set of chrome vanadium drivers consisting of T7, T8, T9, T10, T15 and T20.
All drivers are 145mm length & presented in a felt-lined plastic case.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2021	$19.95	$17.70	$15.70

6 Piece Insulated Electronic Screwdriver Set

These screwdrivers have ergonomic handles with excellent non-slip grips. The shafts are fully insulated and rated for 1000V. The set contains all the smaller sizes you need for working on electronic gear. Storage case included.

- Slotted: 2mm, 2.5mm, 3mm
- Phillips: #00, #0, #1
- 1000V rated
- TÜV and GS approved
- Case: 192(L) x 130(W) x 26(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2026	$19.95	$17.70	$15.70

15 Piece Micro Driver Set

This handy set comes with all those microscopic fasteners we come across in modern electronics. The ergonomic handles are colour coded for easy identification and they come in a sturdy storage case.

Slotted: 1mm, 1.4mm, 1.8mm, 2.4mm
Phillips: #000, #00, #0, #1
Torx: T5, T6,T7, T8
Hex: 1.5mm, 2mm, 2.5mm
Drivers: 105mm long
Case size: 192(L) x 130(W) x 26(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2069	$24.95	$22.35	$19.70

SCREWDRIVERS - SPECIAL APPLICATION

22 Piece Long Bit Screwdriver Set with Case

NEW 2013

Tackle a wide range of fastening scenarios using our compact screwdriver set comprising a selection of popular slotted, Phillips, Star and TRI bits, packed away neatly inside a handy storage case.

Includes:
- Slotted: SL1.5, SL1.7, SL2.0, SL3.0 and SL4.0
- Phillips: PH000, PH00, PH0, PH1 and PH2
- Star: T5, T6, T7H, T8H, T9H, T10H, T15H and T20H
- TRI: 2.5, 3.0, 1.6 and 2.0

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2114	$29.95	$26.90	$23.70

Eyeglass Repair Tool Kit

NEW 2013

Repairing your glasses is now as easy as: drop it in, screw it down and snap it off. The eye glass repair kit makes fumbling with tiny replacement screws a thing of the past. This unique snap-off screw allows you to effortlessly guide the replacement screw where it needs to be.

- Repairs most eye glasses instantly
- No slipping, no dropping, no more frustration
- Includes: 4 x snap-off screws, 1x screw driver, convenient carrying tube

Note: Glasses not included

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2087	$3.95	$3.45	$3.15

Keyring Screwdriver

NEW 2013

A worthy addition to your keyring. Great for opening some mobile phones, watches, or other gadgetry.

- Smaller than it looks in picture
- Flat head screwdriver
- Philips head screwdriver
- Hex nut driver
- Dimensions: 57(L) x 4(Dia.)mm

Note: Glasses not included

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2086	$2.50	$2.21	$1.95

4 in 1 Screwdriver Set

NEW LOWER PRICE

This handy screwdriver has four different bits and is about the size of a normal pen. The lid can also be used to extend the length of the handle. Encased in a durable plastic case.

Cat.	Qty 1+
TH-1909	$1.95

Low Voltage Circuit Tester 6, 12, 24 Volts

Looks like a neon test screwdriver but instead of a blade on the end this tester has a probe and a 28" lead which clips to ground.

- Suitable for 6/12/24 volts for use on cars, trucks, boats, etc.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2049	$3.95	$3.45	$3.15

"Smart" Test Screwdriver

- Capacitor check
- Diode check
- Transistor check
- Globe/relay/fuse/speaker/resistor check
- Locating broken wire
- Picks up static radiation of TV or monitor
- Instantaneously checks AC power
- Earth disconnection check
- AC voltages
- DC voltage test up to 250V DC
- Continuity check
- Polarity check 1.5V to 36V DC
- Supplied with comprehensive instructions.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2055	$11.95	$10.70	$9.50

TOOLS

Screwdrivers

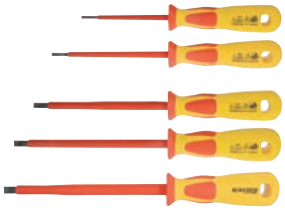
ELECTRICAL SCREWDRIVERS

This range of trade quality insulated screwdrivers is one of the most comfortable screwdrivers we have ever used. The ergonomic handles have a soft rubber coating for a secure, comfortable grip that you can use for hours on end. All are TUV and GS approved and rated up to 1kV.

- A size for any application

Slotted

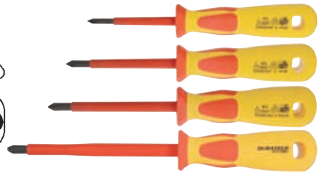
TD-2230 Flat Blade 2.5 x 75mm
TD-2231 Flat Blade 3.0 x 100mm
TD-2232 Flat Blade 5.5 x 125mm
TD-2233 Flat Blade 6.5 x 150mm
TD-2234 Flat Blade 8.0 x 175mm



Wmm	Lmm	Cat.	Qty 1+	Qty 3+	Qty 6+
2.4	75	TD-2230	$4.50	$3.95	$3.60
3.0	100	TD-2231	$4.95	$4.45	$3.90
5.5	125	TD-2232	$5.65	$4.95	$4.45
6.5	150	TD-2233	$6.95	$6.25	$5.50
8.0	175	TD-2234	$7.95	$6.95	$6.25

Phillips

TD-2235 Phillips #0 x 60mm
TD-2236 Phillips #1 x 80mm
TD-2237 Phillips #2 x 100mm
TD-2238 Phillips #3 x 150mm

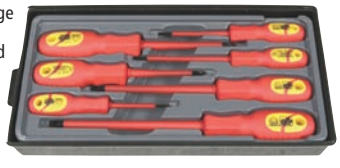


Size	Blade	Cat.	Qty 1+	Qty 3+	Qty 6+
0	60mm	TD-2235	$4.95	$4.45	$3.90
1	80mm	TD-2236	$5.65	$4.95	$4.45
2	100mm	TD-2237	$6.95	$6.25	$5.50
3	150mm	TD-2238	$7.45	$6.50	$5.75

ELECTRICAL SCREWDRIVER SET

1,000V 7 Piece Screwdriver Set

A quality set of 7 screwdrivers with storage box that offers reliability & value without compromise. GS & VDE tested & approved to 1000V. With red handles and insulation right to the tip, you will find them amongst your tools quickly & easily.



- DIN EN 60900.

Drive sizes:
Flat: 1.2 x 6.5 x 150mm, 1 x 5.5 x 125mm, 0.8 x 4 x 100mm and 0.6 x 3.5 x 75mm
Phillips: #2 x 100mm, #1 x 80mm and #0 x 60mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2022	$19.95	$18.70	$15.70

SPANNER SET

10 Piece Spanner Set for Electronics

Ideal mini spanner set. Set of 10 pieces, open end/ring combinaion. Suitable for light hobbyist use.

- Sizes supplied are: 4.0, 4.5, 5.0, 5.5, 6.0, 7.0, 8.0, 9.0, 10 & 11mm.
- Supplied in a plastic wallet.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1910	$17.95	$15.95	$14.35

TOOL KITS

Tool Set Repair Kit for iPhone®

A cracked screen or dead battery is not the end of your iPhone®. Learn how to repair it yourself and save hundreds of dollars. This useful kit comes with screwdrivers for opening the iPhone 3® or iPhone®4/4s as well as iPad®. There are screwplates for the iPhone®3 and iPhone 4® so you can keep track of which screw goes where for quick re-assembling. A plethora of step-by-step tutorials are available on YouTube®.

Contents
- Scraping Plastic Film
- Special tool for capacitive screens
- 0.8 screwdriver (for iPhone 4®/iPhone 4s®)
- 1.2 screwdriver (for iPad®)
- 1.3 screwdriver (for iPhone 3® and parts of iPhone 4®)
- Guitar pick opening tool
- Plastic prying tool

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2112	$12.95	$11.35	$10.35

19 Piece Repair Kit for iPhone®

NEW 2013

All the tools you need to take apart your iPhone® for DIY repair jobs, organised neatly inside a compact storage case.

Includes:
- 13 x 4mm bits:
  - PH00, PH0, PH1
  - SL1.5, SL2.0
  - Torx: T4, T6, T8, T10
  - Pentalobe: 0.8, 1.2
  - HEX1.5, HEX2.0
- Plastic Prying Tools
- Guitar Pick Opening Tool
- Tweezers
- Suction Vacuum Opener
- SIM Card Ejector Pin Tool

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2113	$29.95	$26.90	$23.70

30 Piece Tool Kit with Case

Minor DIY repairs are a breeze with this 30 piece tool kit and every DIYer should have one of these in easy reach. The tools are held securely in a zip-up case.

Contents:
- Side cutters
- Long nose pliers
- Snap-blade knife
- Tape measure
- Precision screwdriver with bits
- Driver handle with: PH1, PH2, PZ1, PZ2, 5, 6mm slotted, T10, T15, T20
- 5, 6, 7, 8, 9, 10mm sockets
- Folding Allen keys 1.5, 2, 3, 4, 5, 6mm
- Case measures 210(L) x 160(W) x 48(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2166	$24.95	$22.35	$19.70

Gaming Console Tool Kit

If you have ever attempted any repair or improvement on your gaming console, you know that the right tools can make the difference between a good experience and a bad one. Everything you need to get into your console and accessories. It includes tools for pretty much every console and handheld on the market today - WII®, X-Box®, Playstation® etc. Carry case included.

Contents:
- PH000, PH00, PH0, PH1
- Slotted 2, 3, 4mm
- T4, T5, T6, T8, T10, T15, T20
- TA2, TA2.3
- TRI00, TRI0, TRI1
- Nintendo® & X-Box® security bits
- X-Box® opening tool
- Stainless tweezers
- Ratchet handle and adaptor

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2109	$29.95	$27.95	$23.70

30 Piece Electronic Tool Kit

An electronic tool kit with all the essentials - cutters, pliers, screwdrivers etc. Ideal kit for computer service people, IT etc.

Contents:
- 3.5" Sidecutters
- 4" Pliers
- Tweezers
- Ratchet driver handle
- Extension bit holder
- Slotted: 1, 1.5, 2, 2,5, 3mm
- Phillips: 000, 00, 0, 1
- Torx: T4, T5, T6, T7, T8, T9, T10
- Nut drivers: M2.5, 3, 3.5, 4, 4.5, 5mm
- Hex: H0.7-H0.9-H1.3-H1.5
- See though storage case
- Case size: 210(L) x 130(W) x 25(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2107	$29.95	$27.95	$23.70

WATCH REPAIR TOOLS

Jaycar has been fiddling with micro tools for years now, from tiny jewellers screwdrivers to small spanner sets to tiny table mounted vices etc..

We have discovered a source of reasonably priced watchmakers' tools (read; pull-watches-apart-tools.)

Here they are, folks.
We expect them to be popular; they are Jaycar kind of products.

2 Piece Watch Case Opener Set

NEW 2013

This set consists of an adjustable opener that engages the little recesses on the back of a watch. You can adjust the removing lugs very accurately to get a tight fit - absolutely essential. The other half of the set looks like a small oyster shucking knife (Appropriate when you think about it!). It is just fine enough to get into that tiny groove that some of the older watch covers have.

- Can open cases 6 - 50mm diameter

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1929	$14.95	$13.35	$11.70

4 Piece Watchmakers' Kit

NEW 2013

Central to this kit is the hand held watch case opener/holder. It has a screw-adjustable case retainer with a very large selection of retaining lugs - indeed 18 in all, some the same. Also included as a large dusting bulb pump, No. 7 tweezers and fine dusting brush.

You will be delighted with this set.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1932	$24.95	$22.35	$19.70

Watchmakers Mallet with Interchangeable Heads

NEW 2013

This unit weighs almost 90 grams and is 185mm long. It features 6 different heads, 4 steel ones, a brass one and acrylic plastic one. It seems that even in watchmaking you need a "persuader". Ball pein on the opposite end.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1927	$9.95	$8.75	$7.75

Watch Bracelet Link Removal Pliers

NEW 2013

This tool enables you to remove and reinstall the fiddly little bracelet pins, so necessary when the bracelet band is new and generally too big for the wearer. It comes with a 1.0mm and 0.8mm pin removal insert.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1923	$29.95	$26.90	$23.70

Watch Case Holder

NEW 2013

The sturdy, but adjustable frame has 4 nylon retaining posts to enable a good safe grip on the watch case. The frame could then be held in a vice, freeing up your hands.

Note: Watch not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1934	$8.95	$7.95	$6.95

Wrist Strap Spring Bar Assortment

NEW 2013

This is a must. A selection of the little spring bars that get broken/bent/lost even by the most careful wearers. This set frees you from the tyranny of the watchmaker. One use will pay for the cost of the whole set.

The assortment consists of a total of 340pcs of the most common sizes: from women's 6mm to men's 23mm. All 1mm Dia. In detail the set includes 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, & 23mm types. Has single sided spring bar and double sided types.

Supplied in quality compartment case.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1928	$14.95	$13.35	$11.70

Pin Extractor Press

A handy little pin-extractor/inserter press with a 0.8mm punch. Mainly intended for taking links out of watch bands, but endless other uses for jewellery making, modelmaking and hobbies.

- 2 spare pin punches
- Assortment of 12 pins

RELATED PRODUCT...
See our new Mini HSS Tap and Die Set on page 48

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-2014	$9.95	$9.25	$7.75

LED Headband Magnifier

This magnifying headset leaves both hands free and can be worn over prescription or safety glasses. It also has a built-in LED light that can be rotated up, down or side to side to illuminate your work. There are three lenses that can be used in combinations to give 1.5x, 3x, 8.5x or 10x magnification. The head strap is fully adjustable and locks into position and the lens assembly can be swivelled up out of the way when not in use. A multitude of uses including lapidary, jewellery, model-making, electronics and camera repair.

- Requires 2 x AAA batteries

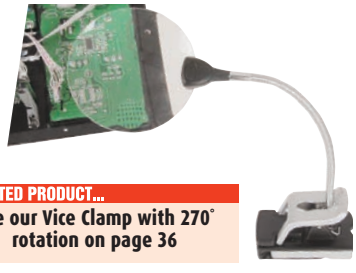
RELATED PRODUCT...
for full range of Magnifying lamps see page 63

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3511	$29.95	$26.90	$23.70

Illuminated Gooseneck Magnifier

The gooseneck magnifier is a valuable accessory for coin/stamp collectors, photography etc. The 2X main lens and 5X insert lens with the bonus of 2 LED lights, is a welcome addition for any hobbyist. The magnifier is clip-on or free standing. Suitable for most flat surfaces or workplace incline up to 38mm thick. The flexible metal arm ensures that you can position the magnifier just where it's needed.

This handy magnifier also comes with a soft protective pouch for your lens to protect it from dirt and dust. It also has metal stablisers to ensure that your magnifier remains stable while working.



- Stands 225mm high
- Includes protective lens pouch
- Lens Diameter: 110mm
- Requires 3 x AAA batteries

RELATED PRODUCT...
See our Vice Clamp with 270° rotation on page 36

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3532	$29.95	$26.90	$23.70

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

Cable Stripping & Crimping

CABLE STRIPPERS

Budget Coax Cable Stripper

Strips insulation from any coax cable and ideal if you only need to strip coax occasionally. Simply insert the cable, twist and turn, then use the other end of the tool to remove the inner insulation.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1815	$4.95	$4.45	$3.90

DIY Coaxial Cable Crimper, Cutter and Stripper

This handy tool guts, strips and crimps RG-58, RG-59 and RG-6 cables and connectors. It strips the centre core or outer jacket by rotating the tool between 2 to 3 times around the cable. Crimp connectors are installed easily by squeezing the handles.

- Perfect for DIY Home use.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1875	$11.95	$10.70	$9.50

Pocket Wire Stripper

Strips anything from 2G to RG6 coax. Easy to use and small enough to take anywhere on the job.

- 120mm long.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1817	$14.95	$13.35	$11.70

Wire Stripper, Cutter Pliers

High quality toughened wire stripper will strip wire sizes from 0.9mm to 5.5mm. Also includes a wire cutter and pliers. Made of alloy steel with hardness and industrial surface treatment and comfortable plastic grip handles.

- Length 165mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1825	$14.95	$13.35	$11.70

Wire Stripper

Great way to strip all sorts of cable without damaging the conductors.

- Automatically adjusts to insulation diameter
- One hand operation.
- Spring return.

TECH TIP!
FEATURES A FINGER GUARD

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1824	$16.95	$14.95	$13.35

Easy Coax Cable Stripper with F-Type Spanner

NEW 2013

Quickly and easily strip coax cable. There is a switch to adjust what thickness coax cable will be stripped. Just put the end of the cable in and it will be spring locked in place, then just twist and you will have successfully stripped the end of the cable. There's also an F-type spanner on the opposite side so you can tighten your connections.

- Dimensions: 150(L) x 50(W) x 10(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1813	$19.95	$17.70	$15.70

Rotary Coax Stripper

This handy stripper will strip the outside jacket and inner conductor in one operation.

- Suitable for RG58/59/62/6 and 3C2V 75 ohm cable.
- Simply rotate the stripper clockwise around the cable 3 to 6 times. A quality stripper suited to installers.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1820	$19.95	$17.70	$15.70

Heavy Duty Wire Stripper / Cutter / Crimper with Wire Guide

Designed for easy wire stripping. The alloy steel can strip all types of cable from AWG 10-24 gauge (0.13 -6.0mm), and the wire guide ensures the correct length is stripped time and time again. It incorporates a precision cutting blade for easy wire cutting.
It also features quality crimping jaws.

- Capable of removing outer insulation from main T & E cable
- For insulated terminals (1.5 - 6mm)
- For non-insulated terminals (1.5 - 6mm)
- For auto ignition terminals (7-8mm)
- This is the best all round wire tool we've seen for a long time,
- Spring return
- Dimensions: 204mm long

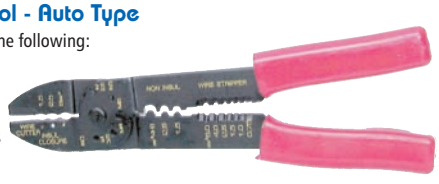
Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1827	$29.95	$26.90	$23.70

CRIMPING TOOLS

5 Way Crimping Tool - Auto Type

This crimping tool will do the following:

- Cut wire
- Crimp insulated & non insulated terminals
- Strip wire with diameters 0.75, 1.0, 1.5, 2.5, 4.0 & 6.0mm
- Cut bolts with diameter M2.6, M3.0, M3.5, M4.0 & M5.0



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1828	$8.95	$7.95	$6.95

Crimping Tool for Non-Insulated Lugs

A quality tool at a budget price. Solid box joint and crimping dies, comfortable handles and spring-loading make this an easy crimper to use all day. It handles non-insulated lugs from 14-18 AWG and 22-26 AWG and also includes a built-in wire cutter.

- 185mm long

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1834	$14.95	$13.35	$11.70

Albert

Makers Name: Kent Muller
Location: Queensland

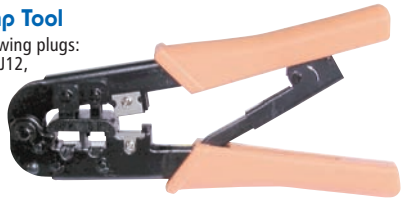
Albert is an Arduino powered tank robot. In the online video Albert is performing his signature move, the "Albert Shuffle".

For more details scan the QR code or go to www.jaycar.com.au/makers

6P/8P Modular Crimp Tool

This tool will crimp the following plugs: 6P2C, 6P4C - RJ12, 6P6C - RJ12, 8P - RJ45.

- It also cuts and strips the cable.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1935	$19.95	$17.70	$15.70

Compression Crimping Tool for F-Type Plugs

A compact compression tool designed for our Foxtel approved F-type plug (PP0708). A channel accurately positions the plug, and a spring-loaded clamp holds the cable in position. These features and leverage action of the handle ensure easy F-type compression crimps can be performed quickly and easily time after time.

- Dimensions: 143(L) x 22(W) x 45(H)mm

RELATED PRODUCT...
See page 142 for F type crimp plugs

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1803	$29.95	$27.95	$23.70

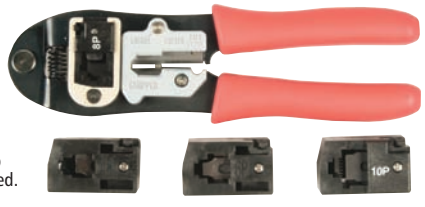
Heavy Duty Coax Crimping Tool

This tool is specifically designed for crimping F, N, BNC, TNC, UHF, ST, SC & SMA connectors onto coax cable for TV and communications applications. It also has adjustable crimp force and 3 hex dies: 2.54mm, 9.12mm & 10.3mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1832	$29.95	$26.90	$23.70

4P/6P/8P/10P Modular Crimp Tool

This great tool will cut, strip and crimp flat telephone cable, or Cat5e type cable also. Constructed from high quality carbon steel, it features interchangeable dies and ergonomic design. It also has a brace to lock them closed.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1936	$39.95	$35.90	$31.90

Hex Ratchet Crimping Tool

Heavy duty ratchet tool designed for crimping F, N, BNC, TNC, UHF, ST, SC & SMA connectors onto RG6, RG58 or RG59 coax cable. It features adjustable crimping force and ratchet mechanism for complete repeatability. Four hex crimping dies: 1.72mm, 5.49mm, 8.23mm and 9.14mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1833	$39.95	$35.90	$31.90

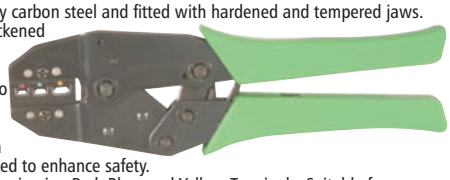
Ratchet Crimping Tool for F-Type Connectors

A strong, heavy duty tool for crimping F-Type CATV connectors onto RG6 or RG59 coax cable. Ideal for cable TV or RF distributions system installers. The tool features a secure ratchet mechanism for accurate and reliable crimps.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1831	$39.95	$35.90	$31.90

Heavy Duty Ratchet Crimp Tool for Insulated Terminals

Manufactured from quality carbon steel and fitted with hardened and tempered jaws. Features a chemically blackened finish for improved corrosion resistance and heavy duty PVC handles to provide operator comfort. Crimping pressure is precisely adjustable and a ratchet release lever is fitted to enhance safety. Has easy identification for crimping Red, Blue, and Yellow Terminals. Suitable for crimping insulated terminals from 0.5mm to 6.0mm in size.



- Overall length is 220mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1829	$39.95	$35.90	$31.90

Ratchet Crimping Tool for BNC/TNC Connectors

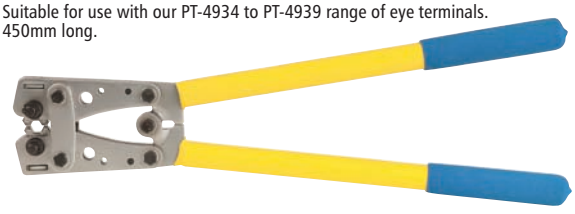
A heavy duty tool for crimping BNC/TNC connectors onto RG58/59/62 coax cable. The tool features a secure ratchet mechanism for accurate and reliable crimps.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1846	$39.95	$35.90	$31.90

Heavy Duty Terminal Crimper

Commonly used for crimping lug/eye terminals onto heavy gauge power cables. The lever arm action makes for a good solid hex crimp on the terminal. Features a built in rotating die which can be rotated to suit terminals for 6/10/16/25/35/50mm2 cable (10AWG-1/0AWG).

- Suitable for use with our PT-4934 to PT-4939 range of eye terminals.
- 450mm long.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1849	$49.95	$44.90	$39.90

Ergonomic Supercrimp Tool

This super-heavy-duty ergonomic crimper is designed to perform the same tasks as a normal crimper, but with 40-50% less handle-force required, and a pressure adjustment dial for variable actuation force. It uses interchangeable dies (available separately) that can be quickly and easily changed. Buy only the ones you require for each job! Dies available for telephone and network plugs, insulated terminals, BNC/TNC connectors to suit RG58/RG59/RG62 coax, and even F-type CAT5 connectors to suit RG59/RG6 coax.

DIES TO SUIT

Cat. TH-1952 Cat. TH-1953 Cat. TH-1954 Cat. TH-1955 Cat. TH-1956 Cat. TH-1957

SUPERCRIMP TOOL

Cat.	Qty 1+	Qty 3+	Qty 6+
Supercrimp Tool TH-1950	$49.95	$44.90	$39.90
6P6C Telephone Connectors TH-1952	$17.95	$15.95	$14.35
8P8C Computer Network Connectors TH-1953	$17.95	$15.95	$14.35
Fully Insulated Crimp Terminals TH-1954	$17.95	$15.95	$14.35
BNC/TNC Coax Connectors for RG58/59/62 TH-1955	$17.95	$15.95	$14.35
F- type CATV to suit RG59 / RG6 TH-1956	$17.95	$15.95	$14.35
Non-insulated Crimp Terminals 22 - 12 AWG TH-1957	$17.95	$15.95	$14.35
SMA / Fibre Optic TH-1958	$17.95	$15.95	$14.35
PV Connector Die TH-1959	$29.95	$26.90	$23.70

Cable Crimping & Stapling

CRIMPING TOOLS (CONTINUED)

Compression Crimping Tool

A precision crimp tool that employs a ratchet action ensuring correct crimping pressure is applied for reliable, trouble-free compression BNC, RCA, PAL and some F-type coaxial connectors. Adjustable compression depth.

Note: This tool is not suitable for our PP-0708 Foxtel Approved F59 Plug.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1801	$59.95	$56.50	$47.90

CRIMPING SETS

Automotive Crimp Tool with Connectors

Unlike other automotive crimp pliers, this excellent tool comes with 80 of the most popular automotive connectors and NOT a bunch of junk you will never use. The tool will cut & strip wire, crimp connectors and also cut a range of metric bolts.
Every car enthusiast should have one of these.

Included connectors:

8 each of male & female blue bullets
8 each of male & female red bullets
8 each of male & female blue spades
8 each of male & female red spades
8 x red eye connectors
8 x blue butt joiners

1 YEAR WARRANTY

RELATED PRODUCT...
See page 149 for full range of terminals

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1848	$13.95	$12.35	$10.95

CAT5 TOOLS

Cat5 Punch-Down Tool / Stripper

LOW-COST

This versatile little tool will strip wire up to 5 to 6.2mm diameter, and doubles as a punch-down tool for 110/88-type terminals, with blade.

Made from poly-resin plastic, with steel cutters this lightweight tool could easily fit in the pocket or tool kit.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1738	$8.95	$7.95	$6.95

Cat5 Punch-Down Tool - Adjustable

It has a turnable body, adjustable impact pressure and a storage compartment within the handle for holding a spare blade. Frame made of polyacetal resin with fibre glass orange handle. Supplied with 88 blade.
Spare blades see TH-1743 below.

Specifications	
Impact pressure	Low: 10 +/- 2 kg (standard wire)
High	15 +/- 2kg (larger wire)
Length of tool	152mm

1 YEAR WARRANTY

RELATED PRODUCT...
See CAT5e cables on page 121.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1740	$22.95	$20.35	$18.35

Blades for Cat5 Punch Tools

NEW LOWER PRICE

These blades are to suit the punch tool - TH-1740. Made from hardened SNCM-21, these blades are both changeable and reversible, and can be changed by hand, no screwdriver necessary. Blade retaining pressure within 4-6 kg. One end of each blade has a cutter for that extra-neat termination, the other end is plain for those "linked" blocks.

	Cat.	Qty 1+	Qty 3+	Qty 6+
110 Krone	TH-1743	$17.95	$15.95	$14.35

F-CONNECTORS

F Connector Seating Tool

This 3 way tool assists in the connection of F type connectors. Includes flaring tool for RG6 and RG59 cable and pre-threading tool. Measures: 60mm diameter

RELATED PRODUCT...
See 'F' connectors on page 142.

Suits RG6/RG59

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1883	$11.95	$10.70	$9.50

CABLE STAPLE GUN

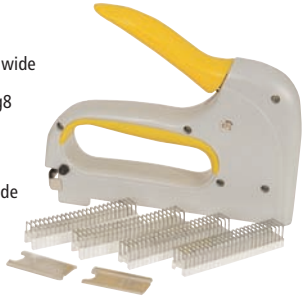
Cable Staple Gun

Take the pain out of cable installation. Instead of trying to pound away with a hammer, simply staple the cable to eaves, rafters or joists. The staples have an integral plastic cable clamp that holds the cable firmly in place. The gun takes a variety of staples sizes to accommodate cables up to 8.0mm diameter.

CABLE STAPLE GUN 4 - 8MM Cat. TH-2610
- Includes gun, 2 interchangeable blades and 200 staples.

CABLE STAPLES REFILL 4 - 6MM PK 200
Cat. TH-2611
- Round cable: 4 - 6mm
- Flat cable: 2.5 - 4.0mm high and <8.0mm wide
- Suits: RG58, RG59, Cat5/6, Alarm Cable, Flat telephone cable, 10A T&E, Extra HD Fig8

CABLE STAPLES REFILL 6 - 8MM PK 200
Cat. TH-2612
- Round cable: 6 - 8mm
- Flat cable: 4.5 - 6.3 high and <10.3mm wide
- Suits: RG6Q, RG8, 8GA, 10A Mains Flex, Jumbo Fig8



		Cat.	Qty 1+	Qty 3+	Qty 6+
Cable Gun		TH-2610	$19.95	$17.70	$15.70
Refill Staples 4-6mm	Pkt 200	TH-2611	$9.95	$8.75	$7.75
Refill Staples 6-8mm	Pkt 200	TH-2612	$9.95	$8.75	$7.75

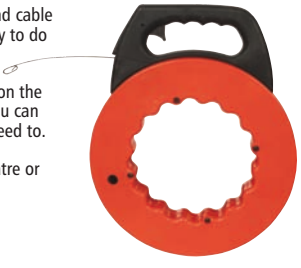
WIRE DRAW TOOL

Wire Draw Fish Tape

A fish tape is a tool that's used to draw wire and cable through wall cavities or conduit. The dumb way to do this is with a length of fencing wire and hours of frustration. The smart way is with 30m of flat, rigid spring steel with a built-in cable eye on the end that rolls up into its own case after use. You can easily direct the rigid wire exactly where you need to.

No electrician, data cabler, antenna, home theatre or security installer should be without one.

- Length: 30m
- Dimensions: 305(Dia) x 38(H)mm



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1869	$29.95	$27.95	$23.70

Rubik's Cube Solving Robot

Makers Name: James Watson

After designing the cube solving algorithms, and the mechanical parts of my robot all I need to do was code the micro-controller. For this I used an Arduino Uno. This translates the string of moves the Python script outputs, flips the cube around and spins the correct face.
Solves the puzzle in about 10 minutes.
See the video online.

For more details scan the QR code or go to www.jaycar.com.au/makers

DRIVERS / DRIVER BITS

Blank Hex Driver For Individual Screw Bits

Use this driver with the bits supplied in our TD-2035 bit sets on the right. It will accept any hex bit in our range and features non-slip rubber handle with magnetic chrome vanadium 50mm long shaft.

- Overall length 160mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2032	$6.95	$6.25	$5.50

7 Piece Hex Nut Driver Set

A useful set of hex nut drivers with deep sockets that allow a generous length of thread to protrude though the nut you are tightening. Sizes supplied are M3, M3.5, M4, M4.5, M5, M 5.5, and M6. A plastic storage pouch keeps the set together.

- A quality Japanese product.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2339	$23.95	$21.35	$18.95

The Power Driver Bit Set

The set consists of 32, yes 32 of the driver bits that you don't normally see. You don't get any slotted, Phillips or Pozidriv™ bits.

You do get:
- 4 x Tri - wing, size 1, 2, 3, and 4
- 9 x Torx (tamperproof), size T8, T10, T15, T20, T25, T27, T30 and T35
- 4 x Pin drive (snake), size 4, 6, 8 and10
- 6 x In - Hex (allen), *metric, size 2, 2.5, 3, 4, 5 & 6
- 6 x In - Hex (allen), *imperial size 5/64", 3/32", 7/64", 1/8", 9/64" and 5/32"
- 3 x Torque Set, size 6, 8 and 10.

With this you get a hex driver with magnetic retainer, all in a nifty plasticy - rubber holder that is smaller than a deck of cards! (67 x 45 x 30mm).
*Tamperproof Torx works as normal Torx as well.
*Tamperproof In - Hex drive type.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2035	$12.50	$10.95	$9.95

LED Screwdrivers with 10 Bits

LED illuminated bit driver for working in spaces with poor lighting. The handle has four LEDs built in to provide working light. 10 bits are included, but any standard hex bit will fit. Great for fiddling around under the bonnet etc

- Four LEDS to eliminate blind spots
- Bits included: PH #0, #1, #2, slotted 3, 4, 5mm, T15, M6 pin drive, M4 hex, hex - 1/4" square converter
- Batteries included, plus a spare set

	Cat.	Qty 1+
	TD-2091	$14.95

Keycase Mini Driver Set

Handy set of 12 mini bits and driver in a convenient key-sized storage case.

- Flat: 1.5, 2, 2,5mm
- Phillips: 0, 00, 000
- Torx: T5, T6, T7, T10
- TN8, Hex 2.5mm
- Case size: 95(H) x 60(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2105	$14.95	$13.35	$11.70

32 Piece Precision Driver Set

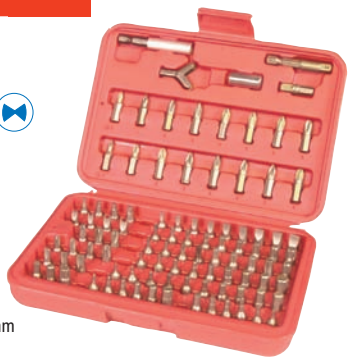
High quality driver set with all those really small bits. Tactile handle with hardened hex shaft that extends from 140 to 210mm. Ideal for jewellery, model making or electronics. Storage case included.

Slotted:	1, 1.5, 2, 2,5, 3, 3.5, 4mm
Phillips:	000, 00, 0, 1
Pozidriv:	0,1
Torx:	T4, T5, T6, T7, T8 T9, T10, T15, T20
Hex:	0.7, 0.9, 1.3, 1.5, 2, 2.5, 3, 4mm
Case:	157(L) x 100(W) x 27(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2106	$17.95	$16.70	$14.35

DRIVER BITS SETS

100 Piece Driver Bit Set



The ultimate driver bit set

Includes:
- 1 x magnetic bit holder
- 1 x square to hex socket driver 50mm
- 1 x square to hex socket driver 25mm
- 1 x square to hex bit adaptor
- Driver bits:
- Phillips # 0, 1, 2 (x5) & 3
- Pozidriv™ # 0, 1, 2 (x5) & 3
- Square drive # 0, 1, 2 & 3
- Slotted 3, 4, 4.5, 5, 5.5, 6, 6.5, 7 & 8mm
- Pin drive (snake) # 4, 6, 8 &10
- Torque Set # 6, 8 & 10
- Torx T8, T10, T15, T20, T25, T27, T30, T40 & T45
- Tamper proof Torx (Metric) T8, T10, T15, T20, T25, T27 & T30
- Hex (Allen) Metric 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, 6.0 & 8.0mm
- Tri-Wing # 1, 2, 3 &4 • Clutch drive # 1, 2 &3
- Hex (Allen) Imperial 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32 & 1/4"
- Spline drive M5, M6 & M8 • Tamper Proof Allen (Metric) 2.0, 2.5, 3, 4, 5 & 6mm
- Tamper Proof Allen (Imperial) 5/32, 9/64, 1/8, 7/64, 3/32 & 5/64" • Wing nut driver,
- All in a snap lock case with clear markings to show where each bit rests.

Note that commonly used driver bits are supplied in greater numbers.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2038	$19.95	$17.70	$15.70

18 Piece Stainless Steel Mixed Bit Set

A collection of commonly used driver bits in a handy rubber edged case. Features a bit locking mechanism for stable driving. All stainless steel so you can be sure they'll last. Driver not included.

- Torx: T10, T15, T20, T25, T30, T40
- Flat blade: 3.5, 5.5, 6.5
- Philips head: 1, 2, 2, 2, 3
- Hex: 4, 5, 6
- Case dimensions: 115(L) x 50(W) x 31(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2111	$19.95	$17.70	$15.70

Spiral Drive Drill / Driver

This unit is reminiscent of drill/drivers of 50 years ago (before cordless drills). The unit consists of a collet-type chuck and handle with a spiral shaft. Pushing the handle towards the job causes the collet to rotate. This would enable a drill (or screwdriver bit for that matter) to very gently and slowly rotate. It is ideal for very fine work and does need some practice to perfect your technique.

- Includes 2 pin vice collets: 0.3-1.0mm & 1.8-2.6mm
- Also 3 small drill bits in tubular case
- Measures: 180(L) overall (uncompressed) x 15(Dia.)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2089	$16.95	$15.70	$13.35

PC Drill Bit Pack - 10 Piece

Includes all the common types:
- 1 x 3.5mm for PC supports and relays
- 2 x 1.2mm - for PC pins and hook-up wire
- 3 x 1mm - for resistors, capacitors, etc.
- 4 x 0.8mm - for ICs etc.

TOTAL - 10 DRILLS

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2400	$12.95	$11.35	$10.35

TOOLS

Drilling, Tapping & Filing

DRILLS & DRILL SETS

Micro Drill Bit Set 0.7 - 2.2mm - 10 Piece

Every hobby engineer needs a set of micro drill bits in the workshop. Quality HSS in incremental sizes from 0.7 to 2.2mm.

- Sizes (one of each): 0.7mm, 0.8mm, 0.9mm, 1.0mm, 1.2mm, 1.4mm, 1.6mm, 1.8mm, 2.0mm, 2.2mm (one each)
- Has 3mm shank to easily fit most chucks

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2407	$14.95	$13.35	$11.70

20 Piece Micro Drill Set 0.3 - 1.6mm

20 micro drills in an indexing storage case, ideal for drilling wood, composites, plastic or soft metals.

Indexed case enables removal of the bit you want without the risk of spilling them all over the place.

- Sizes: 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.85, 0.9, 0.95, 1.0, 1.2, 1.3, 1.4, 1.6, 1.6mm
- Case size: 130(L) x 70(H) x 8(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2406	$12.95	$11.35	$10.35

Stepped Drill Bits

Drill multiple size holes with the one bit! You can drill through plastics and non-hardened metals (such as aluminium or copper sheeting etc) up to 4mm thick! Made from high speed steel (HSS), they will last for a very long time.

Two sizes available:
- 4 - 12mm drill in 1mm steps - TD-2436
- 12 - 20mm drill in 1mm steps - TD-2438

	Cat.	Qty 1+	Qty 3+	Qty 6+
4 - 12mm	TD-2436	$24.50	$21.95	$19.35
12 - 20mm	TD-2438	$34.50	$30.95	$27.45

3/8" Precision Keyless Drill Chuck

Features an ergonomic design that gives a more powerful locking action and a patented 'Click Lock' system to indicate that the chuck is properly locked. The chuck's unique locking system makes it ideal for use on hammer drills and other high-vibration applications.

- 3/8" - 24UNF mounting thread
- 1/32" - 3/8" (0.8 - 10mm) drill capacity
- Suitable for drills up to 1,200 watts

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2011	$14.95	$13.35	$11.70

PCB Drill Chuck

This chuck will allow you to use drill bits from 0.6mm up to 2mm on your normal drill / cordless drill / power screwdriver or screwdriver which accepts standard hex bits.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2010	$9.95	$8.75	$7.75

Deburring Tool

Clean up the edges of a hole. Suitable for steel, plastic, wood etc. Blades are fully ground for safety. SK2 steel blades are hardened to HRC64. Supplied with spare blade. Will deburr virtually anything.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1845	$9.95	$8.75	$7.75

Tapered Reamer

This great tool is ideal for enlarging and shaping holes in plastic, thin metal and wood. Tapers from 3mm to 12mm and is made from high quality treated steel.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2130	$9.95	$8.75	$7.75

4 Piece Countersink Set

The easy way to deburr or countersink. Simply drill hole, insert tool with appropriate bit, and turn for a countersunk angle of 90°. Bits include 12, 16 and 19mm - all hardened carbon steel.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2027	$13.95	$12.35	$10.95

Double Ended Ti-N Countersink Bit 1 - 4mm

CRAZY CLEARANCE

The best countersinking bits around. The design of the cutting face means that they last longer and are far easier to sharpen. They also clear chips quicker and more efficiently, so are suitable for production machining. The tip is titanium nitride coated and double-ended so when one end gets dull, flip it around and use the other end. Suitable for wood, plastics, ferrous and non-ferrous metals.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2160	$2.95	$2.60	$2.30

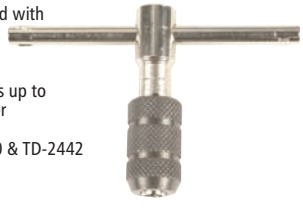
M3 & M4 Metric Taps

Clean up a cross threaded nut or cut a thread into a chassis or heatsink etc. High quality tool steel.

	Cat.	Qty 1+	Qty 3+	Qty 6+
3mm	TD-2440	$3.75	$3.30	$2.95
4mm	TD-2442	$4.45	$3.95	$3.45

T-Type Tap Wrench

Can also be used with twist drills and reamers, etc.
- Accepts shafts up to 5mm diameter
- 3 - 5mm
- Suits TD-2440 & TD-2442 above.



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2445	$12.95	$11.35	$10.35

31 Piece Mini Tap & Die Set

NEW 2013

This 31 piece set is for the ultra small screws found in electronics. The kit consists of 9 metric screw cutting dies: 1.0, 1.1, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2 & 2.5mm types in high speed steel and 18 equivalent taps in the same sizes above but with a taper and a plug version of the tap.

There are 2 die liners to accommodate the smaller dies in the stock supplied.

You will love this rare product. Supplied in a see-through plastic case which securely holds all parts.

- Dimensions: 83(W) x 153(L) x 12(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2443	$59.95	$53.95	$47.90

File Saw

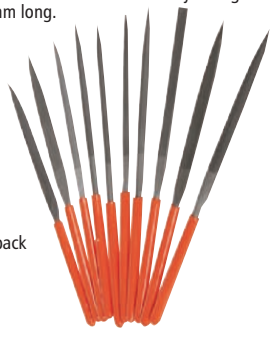
This is a versatile tool that will find many uses around the home or workshop. Great for cutting odd shapes in plaster, PVC pipe, PVC sheeting, leather, plastic and many other soft materials. The tool will trim holes to any radius and get into places where others won't. The blade measures 175mm long and the large, easy grip handle is 120 mm long.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-2127	$15.95	$14.35	$12.70

10 Piece Needle File Kit

Every toolbox should have a set of needle files. This set contains every profile you could ever need. All have integrated plastic handles and come in a handy storage wallet. Each is 162mm long.

Profiles:
- Round
- Elliptical
- Half-round
- Double half round
- Triangle
- Square
- Flat
- Flat tapered
- Knife
- Flat tapered safe back



	Cat.	Qty 1+	Qty 3+	Qty 6+
10 Piece	TD-2128	$14.95	$13.35	$11.70

PRODUCT DATA

We now have so much data and fact sheets we cannot fit it all here! Check our website for over 3,500 pages of data!

MORE INFO WEB

MAGNETS

Large Rare Earth Magnets - Pair

These rare earth magnets are exceptionally strong. They are made from NdFeB (Neodymium Iron Boron), providing the highest available magnetic energy of any material. Suitable for a wide variety of applications where a very strong magnet is required. In fact, these are the same magnets used in our Faraday shake torches. The nickel casing protects the magnets because the material is very brittle.

- Sold as a pair.
- Dimensions: 19mm dia x 28.2mm long
- Grade: NdFeB, N35
- Coating: Nickel

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1652	$29.95	$26.90	$23.70

Rare Earth Magnets with Mounting Holes

Super powerful rare earth magnets with 4.5mm countersunk mounting holes so you can fix them to your project to latch a door closed, etc.

Two types available:

Round 25(Dia) x 5mm Cat. LM-1626
Rectangle 50(L) x 20(W)mm Cat. LM-1628

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1626	$18.95	$16.95	$14.95
LM-1628	$24.95	$22.35	$19.70

Rare Earth Magnets

These magnets feature rare earth compounds combined with ferrite (anisotropic) to produce incredibly strong attraction/ repulsion. They are encased in nickel jackets because the material itself is very brittle. We warn you that getting a finger between these could result in a nasty pinch! They are provided with a nickel plated iron "keeper".

Small - 10mm dia x 3mm - Pkt 4 Cat. LM-1622
Medium - 25mm dia x 5mm - Each Cat. LM-1618

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1622	$13.95	$12.35	$10.95
LM-1618	$17.95	$15.95	$14.35

TECH TIP

RARE EARTH MAGNETS

"Rare Earth" is a mineral that is, well, rare.

It contains Neodymium which has unbelieveable magnetic properties. Recently China, a country with a large proportion of the world's rare earth mineral has threatened to hoard the material for strategic reasons. This caused a scare as Neodymium is used in missile guidance systems and the worldwide price skyrocketed. A small number of our product - magnets which are so powerful they are truly "scary" had to go up in price.
The Chinese have reverted a bit and are no longer holding on to all stocks and there have been a number of new discoveries (in Western Australia among others) so the supply situation has eased somewhat.

The cost of the material, however, is still high.

Magnet Bars

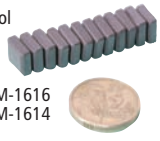
Educational magnets. Ideal for hobbyists & children to learn more about magnetism.

- Each end is marked with "N" or "S".

Bar magnet - 70L x 12W x 5Dmm Cat. TH-1874
U Shaped - 30mm x 30mm Cat. TH-1873

Cat.	Qty 1+	Qty 6+	Qty 20+
TH-1874	$1.00	$0.90	$0.80
TH-1873	$1.00	$0.90	$0.80

Ferrite Magnets



Ideal for hobby and craftwork, school projects etc. Can be glued to wood, plastic rubber etc.

10L x 10W x 4Dmm - Pkt 12 Cat. LM-1616
20L x 15W x 5Dmm - Pkt 6 Cat. LM-1614

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1616	$6.95	$6.25	$5.50
LM-1614	$6.95	$6.25	$5.50

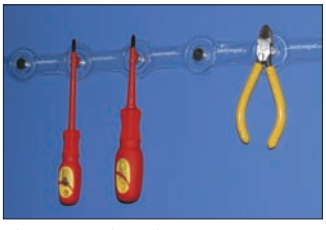
Flexible Adhesive Magnetic Rubber Strip

This self adhesive magnetic rubber strip can be cut down to suit an application and makes an ideal fridge magnet for adhering to promotional material such as menus, calendars etc.

- Dimensions: 15(W) x 500(L)mm.
- 2mm thick.

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1612	$5.95	$5.25	$4.75

Handy Magnet Strip



You'll find dozens of uses for this innovative magnetic storage system. It's simplicity itself and can be attached to walls, tables or other surfaces to hold tools, brushes, scissors, key rings or any other object that contains iron.

Cat.	Qty 1+	Qty 6+	Qty 20+
LM-1624	$19.95	$17.70	$15.70

Tool Magnetiser / Demagnetiser

Magnetised screwdrivers make life easier. This tool has two slots, one which will magnetise and the other to demagnetise. The holes are large enough for the largest of screwdrivers.

- 50 x 50 x 30mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2042	$6.95	$6.25	$5.50

RELATED PRODUCT...
Full range of PCB & Component Tools - Tweezers, Extraction Tools, Scribers, Punches etc see page 61

Telescopic Magnetic Pickup Tool with LED

Sunday arvo, 5 o'clock and you drop the last bolt into the crankcase. No problem - with this handy tool, you can see where it is with the built-in LED torch and retrieve it with the magnetic tip. The torch comes on as soon as you extend it and it has a handy pocket clip so it doesn't get lost. A must for every toolbox.

- Picks up over 100g in weight
- Batteries included
- Extends to 870mm
- 170mm long (closed)

NEW LOWER PRICE

Cat.	Qty 1+	Qty 6+	Qty 20+
TH-1877	$9.95	$8.75	$7.75

Super Extension Claw & Magnetic Pickup

Actually two tools. Tool No. 1 is a 600mm long flexible syringe-action claw gripper similar in operation to a pearl catch. The 4 prong gripper will capture an object up to 15mm in diameter with about 500g of gripping force. It is ideal for retrieving, say, a nut or screws in an engine compartment or piece of equipment. Tool No. 2 is the same thing except that it has a magnet on the end instead of a claw. We sell them as a set because they complement each other .

Cat.	Qty 1+	Qty 6+	Qty 20+
TH-1868	$6.95	$6.25	$5.50

Magnetic Telescopic Bar

A VERY HANDY TOOL!
This looks a bit like a telescopic TV antenna section with a clip to hold in your pocket. It has 7 extensions, and measures 640mm when extended and 127mm when closed. The tip on the end is a powerful magnet. It's ideal for picking up that dropped nut, screw or component etc from inside a piece of equipment. The magnet is strong, we picked up a screwdriver which weighed 60 grams.

Cat.	Qty 1+	Qty 6+	Qty 20+
TH-1870	$8.95	$7.95	$6.95

OTHER TOOLS

Inspection Mirror

Low cost inspection mirror.
Ideal for looking into hard to get places.
Length: 160mm, mirror diameter: 24mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1872	$4.95	$4.45	$3.90

Forceps (Haemostats)

These clamps are made of stainless steel and can be locked on to the item they are holding. They are 130mm long, so they are ideal to reach into hard-to-get-at places. Also great for holding components etc., whilst soldering.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1755	$8.95	$7.95	$6.95

Tool Cases

TOOL & INSTRUMENT CASES

Aluminium Attaché Case

High quality, all silver case, supplied with tool pallet, which can be removed if not required. Lid includes a document holder and the padded case includes 5 dividers that can be rearranged or removed. Lockable and includes two keys.

- Size 450(W) x 320(D) x 145(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HB-6352	$59.95	$53.95	$47.90

Foam Insert Aluminium Attaché Cases

Ideal for Camera, Video and Test Equipment, these cases feature removable 15mm square foam pieces so you can make a hole to the exact size of your valuable equipment. The lid also has a foam insert for complete protection. Cases are lockable and supplied with two keys. Great for wine and glasses also.

SMALL
Measures 407(W) x 277(D) x 95(H)mm
Includes carry strap

LARGE
Measures 450(W) x 320(D) x 145(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
Small	HB-6355	$39.95	$35.90	$31.90
Large	HB-6356	$69.95	$62.95	$55.95

ABS INSTRUMENT CASES WITH PURGE VALVES

These robust cases come with purge valves for an airtight seal, ribbed ABS construction, stainless steel hinge pins, O-ring seals and very solid catches. The lids are lined with removable egg-shell foam and they come with pluck foam insert with an extra layer of egg-shell foam. These are truly exceptional cases that you should have no qualms about entrusting your camera gear, test, medical or scientific equipment.

- 3 year warranty.

NEW LOWER PRICE

3 YEAR WARRANTY

ABS INSTRUMENT CASE MPV1

Tiny size for small instruments or test equipment.

Dimensions:
Internal: 186(W) x 123(D) x 75(H)mm
External: 210(W) x 135(D) x 90(H)mm
Cat. HB-6388

ABS INSTRUMENT CASE MPV2

Small size for a single SLR camera, DMM or other test equipment.

Dimensions:
Internal: 300(W) x 220(D) x 90(H)mm
External: 330(W) x 280(D) x 120(H)mm
Cat. HB-6381

ABS INSTRUMENT CASE MPV4

Medium size to take extra camera and lenses or larger gear such as oscilloscopes or multiple pieces of test equipment.

Dimensions:
Internal: 395(W) x 320(D) x 117(H)mm
External: 430(W) x 380(D) x 154(H)mm
Cat. HB-6383

TOOL CASES & BOXES

Multi-storage Tool Case

Make up your own tool kits? Our computer service tool kits are supplied in these cases. They are made from vinyl and have a zipper to keep them closed. Inside, there is a number of elastic loops to hold the tools in place.

- 17 loops
- Aproximately 220(W) x 320(D)mm when open

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HB-6390	$9.95	$8.75	$7.75

4 Tray Tool/Storage Case

On-site storage of parts, tools, fishing tackle or anything else you need to tote around. Each compartment has a 233 x 122 x 32mm 13 compartment storage box for small items with dividers that can be removed to accommodate larger things. All the hinges and catches are the durable pintle type, not a flimsy bit of folded plastic that will snap after a week. The top tray has a generous 265 x 160 x 65 space for ancillary items and it's finished in a tasteful shade of industrial yellow and black.

- Dimensions: 270(W) x 260(H) x 150(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HB-6302	$16.95	$14.95	$13.35

TECH TIP!

LOOKING FOR STORAGE CASES?

Ideal for carrying small components. See through plastic construction enables the contents to be easily identified.
See page 128 for our full range.

ABS INSTRUMENT CASE MPV7

Large size. This case also has moulded slots to take dividers and two layers of pluck foam. It's also deep enough to take a pro SLR camera body.

Dimensions:
Internal: 485(W) x 355(D) x 186(H)mm
External: 515(W) x 415(D) x 200(H)mm
Cat. HB-6385

3 YEAR WARRANTY

ABS INSTRUMENT ROLLING CASE MPV8

Ideal for the travelling professional. Like a conventional piece of luggage, it has a retractable handle and built-in wheels to take the load. It's also carry-on size.

Dimensions:
Internal: 510(W) x 292(D) x 175(H)mm

External: 530(W) x 355(D) x 225(H)mm
Cat. HB-6387

	Cat.	Qty 1+	Qty 4+	Qty 10+
MPV1	HB-6388	$34.95	$31.45	$27.90
MPV2	HB-6381	$54.95	$49.45	$43.90
MPV4	HB-6383	$84.95	$76.50	$67.95
MPV7	HB-6385	$119.00	$106.95	$94.95
MPV8	HB-6387	$175.00	$157.95	$139.95

NEW LOWER PRICE

Soldering & Service Aids

It seems that the introduction of lead-free solder has not caused the reliability problems that we feared. It may be still too early to say, however lead/tin solder has not been banned (yet!) and most of us still use it for our own personal use. If you are running low, we suggest you buy a roll in case it eventually is banned.

Apart from that, our lineup basically remains unchanged since last year.

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SOLDERING EQUIPMENT

40W Temperature Controlled Soldering Station

An ideal entry-level soldering station for the hobby user. This station comes with a lightweight iron with anti-slip grip and tip cleaning sponge, with temperature adjustment up to 450°C. It also has a 4mm banana socket connected to mains earth for soldering static-sensitive components.

- Spare tip 0.5mm conical: TS-1622

Specifications	
Recommended use	Hobby
Power	40W
Temperature range	150 - 450°C
Analogue/digital	Analogue
Operating voltage	240VAC
ESD rated	No
Lead-free rated	No
Dimensions	135(L) x 82(W) x 70(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Station	TS-1620	$59.95	$53.95	$47.90
0.5mm Conical Tip	TS-1622	$8.95	$8.25	$6.95

48W Temperature Controlled Soldering Station

Ideal station for the advanced hobby user. It features accurate analogue temperature adjustment, ceramic element and a lightweight pencil that will give you hours of fatigue-free soldering. The stand has spare tip storage and is very sturdy.

- Spare tips/pencil available

Specifications	
Recommended use	Hobby
Power	48W
Temperature range	150 - 450°C
Analogue/digital	Analogue
Operating voltage	24V
ESD rated	No
Lead-free rated	Yes
Dimensions	150(L) x 115(W) x 92(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Solder Station	TS-1564	$99.00	$88.95	$78.95
Spare Pencil	TS-1565	$39.95	$35.90	$31.90
0.5mm Conical Tip	TS-1566	$9.95	$9.25	$7.75
2.0mm Conical Tip	TS-1567	$9.95	$9.25	$7.75

TECH TIP

SOLDERING IRON TIPS & MAINTENANCE

There's a few people in our offices that were on the tools for 20 years or so before they worked here. Some of these old hands still have and use the first soldering station they ever bought and will attest to the fact that you can make a good soldering station, and the iron in it, last for 20 years or more if you look after it, so here's the benefit of our experience:

1. **Make sure you stock up on the consumables that your iron uses, especially tips. There's no guarantee that the tips will be available forever. We make every effort to ensure that spares are available for the stations we sell, but we can never guarantee the company who made your iron (and the tips) won't go under.**
2. **Tin the tip of your iron as it heats up by coating it with solder. This will assist the transfer of heat to the joint and extend tip life.**
3. **Get in the habit of removing the tip from your iron once a month or so, cleaning the barrel and ferrule, then refitting it. It's not uncommon for tips to seize in the barrel of an iron, never to be removed. If this happens, you'll be shopping for a new iron. A good tip is to take the tip out when the iron is stone cold. The metal in the tip will have contracted and it will be easier to remove.**
4. **Keep your tip-cleaning sponge clean and wet - it's the water in the sponge that helps remove molten solder and flux residue from the end of the tip.**
5. **If you need to clean the tip, do so with a soft nylon kitchen pad, and NEVER use a file on the top of a soldering iron. Most modern tips used in electronics have a tip that is plated. The reason for this is that the flux in the solder would quickly eat the copper in the tip if it were exposed. Eventually, the plating will wear away, but don't file it away.**
6. **Invest in a stand for your iron, or better yet, invest in a soldering station. Soldering iron burns hurt...a lot. With the low cost of soldering stations, there's no reason why everyone can't have a temperature-controlled soldering station on their bench.**

Soldering Stations

SOLDERING STATIONS - 240V (CONTINUED)

60W Lead Free Soldering Station with LCD Panel

Differing types of lead-free solder have a variety of melting points which can create problems for older soldering stations or those not designed for lead free solder. This excellent soldering station is particularly suited to lead-free soldering and is just as capable with ordinary leaded solder. The iron has a wide temperature range which is microprocessor controlled and maintained to within a few degrees of the selected setting. The lightweight soldering pencil is fitted with a soft insulated rubber grip for comfortable long term use and has a silicon rubber sheathed power cable that won't be damaged by contact with the hot soldering tip. It is connected to the main unit via a 1.1m low voltage cable which is terminated with a secure 5 pin connector. The control unit houses the temperature controls and simultaneously displays the set operating temperature and actual tip temperature, as well as system status on its digital LCD panel. For a list of spare parts search for TS-1390 on our website.

- Spare conical tips available

Specifications	
Recommended use	Trade / Industrial
Power	60W
Temperature range	160 - 480°C
Analogue/digital	Digital
Operating voltage	24VAC
ESD rated	No
Lead-free rated	Yes
Dimensions	130(L) x 170(W) x 240(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Solder Station	TS-1390	$179.00	$160.95	$142.95
0.4mm Conical Tip	TS-1391	$12.95	$11.35	$10.35
1mm Conical Tip	TS-1392	$12.95	$11.35	$10.35
2mm Chisel Tip	TS-1393	$12.95	$11.35	$10.35
3mm Bevel Tip	TS-1394	$12.95	$11.35	$10.35

1 YEAR WARRANTY

60W ESD Safe Solder/Desolder Rework Station

Complete solder/desolder station for production and service use. Both the soldering pencil & hot air blower temperature are microprocessor controlled for precise control of dynamic thermal performance where you need it - at the work tip.

The control unit has two LCDs that display the set temperature and the actual tip or nozzle temperature in Celsius and Fahrenheit.

The temperature is easily adjusted in 1° increments with simple up/down buttons and the soldering/rework functions can be operated independently of each other.

Specifications	
Recommended use	Trade / Industrial
ESD rated	Yes
Lead-free rated	Yes
Analogue/digital	Digital
Soldering Iron	
Power	60W
Temperature range	160 - 480°C
Operating voltage	24VAC
Air Pump	
Heating element power	80W
Power	45W
Air flow	0.5 - 24 litres/min
Blower power	320W
Temperature range	160 - 480°C
Operating voltage	240VAC
Dimensions	225(L) x 215(W) x 155(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Solder Station	TS-1574	$369.00	$335.00	$299.00
2.5mm Single Tip	TS-1575	$13.95	$12.35	$10.95
4.4mm Single Tip	TS-1576	$13.95	$12.35	$10.95
10 x 10mm Quad Tip	TS-1577	$19.95	$17.70	$15.70
15 x 15mm Quad Tip	TS-1578	$19.95	$17.70	$15.70

1 YEAR WARRANTY

70W ESD Safe Anti-static Temperature Controlled Soldering Station with Digital Display

Precision, Japanese manufactured instrument with excellent temperature stability and anti-static characteristics.

SOLDERING PENCIL

Lightweight pencil features a grounded tip, ceramic heater, integrated temperature sensor and very supple silicone rubber grip. The temperature sensor provides precise tip-temperature information to the heater controller, which maintains the selected heat setting with a high degree of accuracy. The tip fits snugly over the heater element providing fast heat transfer and tip temperature recovery during heavy soldering. The 1.1m silicone sheathed cord attaches to the controller via a 5 pin DIN connector.

- 0.5mm tip supplied

CONTROL UNIT

The control panel includes a digital temperature display unit, rotary temperature control, calibration control and display changeover switch to display either the desired or actual tip temperature. The darkened see-through cover prevents accidental temperature change but allows for easy access when required.

- Control dimensions, weight: 146(L) x 115(W) x 98(H)mm, 1.5kg

Specifications	
Recommended use	Trade / Industrial
ESD rated	Yes
Lead-free rated	Yes
Analogue/digital	Digital
Soldering iron	
Power	70W
Temperature range	200-480°C
Operating voltage	24VAC
Dimensions	146(L) x 115(W) x 98(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Solder Station	TS-1440	$299.00	$269.00	$239.00
Replacement sponge	TS-1445	$7.95	$6.95	$6.25
0.5mm Tip	TS-1441	$19.95	$17.70	$15.70
0.2mm Tip	TS-1442	$19.95	$17.70	$15.70

goot

TECH TIP!
JAPANESE MADE

2 YEAR WARRANTY

SOLDERING IRONS - BATTERY POWERED

6W Soldering Iron - Battery Powered

We have been surprised by the popular acceptance of this product, considering its modest power rating. Don't expect too much, but it will re-solder a dry joint or fix a solder lug, etc. It is ideal in potentially explosive situations, such as a bilge, or where petrol fumes may be present. Reaches full temp in about 10 seconds.

- Uses 3 x AA batteries (not included)
- Safety cover that locks the switch to "Off" so it won't discharge inside your tool box.
- Dimensions: 175(L) x 36(W) x 18(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
6W Soldering Iron	TS-1535	$19.95	$17.70	$15.70

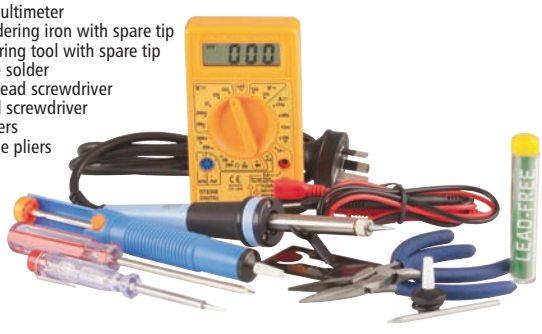
SOLDERING IRONS - STARTER KITS

25W Soldering Iron Starter Kit with DMM

NEW 2013

The ideal starter package for young electronics enthusiasts or the home handyman, this kit contains everything needed for basic electronics work. The kit includes a soldering iron, digital multimeter, and set of hand tools suitable for working on small items such as electronics projects or automotive circuits.

- Digital multimeter
- 25W soldering iron with spare tip
- De-soldering tool with spare tip
- Lead free solder
- Phillips head screwdriver
- Flat head screwdriver
- Side cutters
- Long nose pliers



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1652	$34.95	$31.45	$27.90

20/130W Soldering Iron Starter Kit

All the soldering essentials for the hobbyist. This kit represents excellent value, the best in soldering we've seen, anywhere. The sum of the individual parts amount to more than double the price we are selling this kit for.

Kit contains:
- 240V 20/130W turbo soldering iron
- Spare tip
- Basic stand
- 1mm solder in dispenser tube
- Metal solder sucker with spare tip and O-ring

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Starter Kit	TS-1651	$24.95	$22.35	$19.70

SOLDERING IRONS - 240V

25W Soldering Iron

Ideal for the hobbyist and handy person. Has a stainless steel barrel and orange cool grip, impact resistant handle.

1 YEAR WARRANTY

- Spare tip available - TS-1466

TECH TIP!
OUR MOST POPULAR IRON

DURATECH

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1465	$13.95	$12.35	$10.95
Spare tip	TS-1466	$3.95	$3.45	$3.15

20/130W Turbo Soldering Iron

Sometimes you need that extra bit of heat in your soldering. Push the little red button on this iron and you get a lot more power - from 20 watts to 130 watts to be precise. Weller-style removable barrel, plated tip and ceramic element.

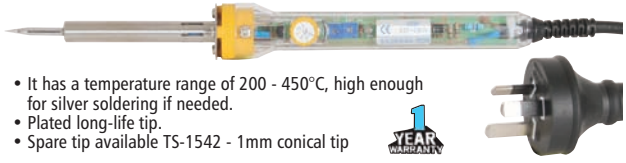
- Spare tips available:
  TS-1555 - 0.5mm conical tip
  TS-1556 - 1mm conical tip
  TS-1557 - 2mm chisel

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1554	$17.95	$16.10	$14.30
0.5mm conical tip	TS-1555	$4.95	$4.45	$3.90
1mm conical tip	TS-1556	$4.95	$4.45	$3.90
2mm chisel tip	TS-1557	$4.95	$4.45	$3.90

30W Temperature Controlled Soldering Iron

If your budget doesn't extend to a soldering station, you can still have temperature control. This iron is adjustable with a dial on the handle.



- It has a temperature range of 200 - 450°C, high enough for silver soldering if needed.
- Plated long-life tip.
- Spare tip available TS-1542 - 1mm conical tip

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1540	$29.95	$26.90	$23.70
1mm Conical Tip	TS-1542	$4.95	$4.45	$3.90

40W Soldering Iron

Ideal for the hobbyist and handy person. Has a stainless steel barrel and orange cool grip impact-resistant handle.

- Fully electrically safety approved.
- Spare tip to suit use Cat. TS-1476

DURATECH

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1475	$18.95	$16.95	$14.95
Spare tip	TS-1476	$4.95	$4.45	$3.90

46W Goot Soldering Pencil - 240V

goot

THIS HIGH QUALITY SOLDERING IRON IS MADE IN JAPAN BY GOOT.
This soldering iron offers exceptional heat recovery. The ceramic heater is automatically controlled by the heating load of the tip. With its high insulation and low current leakage, soldering of precision flat ICs and CMOS is safe. The heater on/off control uses a zero-volt switch circuit which reduces noise.

2 YEAR WARRANTY

- Tip temperature is set at 320°C
- The power lead is made from silicone rubber, which is very flexible
- The handle incorporates a ribbed rubber piece for superior grip
- Electricity Safety Approval Number SAITE20185

TECH TIP!
JAPANESE MADE

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Pencil	TS-1430	$79.95	$71.95	$63.95
0.5mm Conical Tip (As supplied with iron)	TS-1432	$19.95	$17.70	$15.70
0.3mm Conical Tip	TS-1434	$19.95	$17.70	$15.70
3.0mm Chisel Tip	TS-1436	$19.95	$17.70	$15.70

AUTOMATIC ACCOUNT
For Schools, Government Departments, Public Companies, Radio & TV Stations

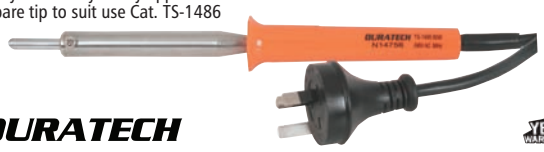
Hand Soldering Tools

SOLDERING IRONS - 240V (CONTINUED)

80W Soldering Iron

Ideal for the hobbyist and handy person. Has a stainless steel barrel and orange cool grip, impact resistant handle.

- Fully electrically safety approved.
- Spare tip to suit use Cat. TS-1486



DURATECH

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1485	$22.95	$20.35	$18.35
Spare tip	TS-1486	$8.95	$7.95	$6.95

GAS SOLDERING IRONS & TORCHES

Pencil Butane Torch

Pocket sized gas torch for heatshrinking, soldering etc and uses standard butane gas. Adjustable flame, all metal construction.

- Dimensions: 205(L) x 13(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1667	$11.95	$10.70	$9.50

Low Cost Gas Soldering Iron

A low cost alternative, this butane gas soldering iron features adjustable tip temperature and a fold-out stand. Remove the soldering tip and you have a flame torch for heatshrink etc. Great for soldering, cutting plastic, or heat shrinking plastic.

- Dimensions: 210(L) x 20(dia)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Soldering Iron	TS-1111	$26.95	$23.95	$21.35
Spare Catalyst	TS-1104	$14.95	$13.35	$11.70
1mm Conical Tip	TS-1105	$4.95	$4.45	$3.90

Gas Soldering Iron / Torch Kit

Everything you need to solder, silver solder, braze, heatshrink, strip paint etc. The iron is refillable with standard butane gas and has an on/off switch and a built-in stand for safety. Extra soldering, torch and cutting tips are included, all housed in a moulded storage case. Replacement gas: NA-1020

- 3 soldering tips
- 1 torch attachment
- 1 rope cutter
- 178mm long

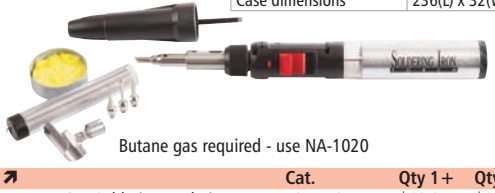
	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1112	$39.95	$35.90	$31.90

Pro Gas Soldering Tool Kit

A sturdy, portable, self-igniting butane powered gas soldering iron tool kit with 3 tips. Produces a 1300°C adjustable flame for low end brazing, tin/plastic melting, automotive repair work, welding and of course heat shrinking. Supplied with 3 interchangeable metal tips for PCB work. For extra convenience the torch has a handy retractable stand so you can rest it somewhere without worrying about it rolling around. It is supplied in a plastic carry case that includes a cleaning sponge, extra tips, a deflector and a cap for the soldering iron.

Spare tips available separately:
TS-1116 - 3mm Flat
TS-1117 - 4mm Chisel
TS-1118 - Blower Tip

Specifications	
Operating time	80-100 min (on minimal flame)
Gas capacity	20ml
Ignition	Internal Piezo Crystal igniter
Weight	115g without gas
Temperature of torch	Up to 1300°C
Temperature of hot blow	Up to 650°C
Temperature of soldering	Up to 500°C
Case dimensions	236(L) x 32(W) x 37(D)mm



Butane gas required - use NA-1020

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Pro Gas Soldering Tool Kit	TS-1113	$69.95	$62.95	$55.95
3mm Flat Tip	TS-1116	$4.95	$4.45	$3.90
4mm Chisel	TS-1117	$4.95	$4.45	$3.90
Blower Tip	TS-1118	$12.95	$11.35	$10.35

Pro Soldering Gas Kit with Wire Strippers/Cutters/Heatshrink

NEW 2013

Excellent value and a handy kit to have close at hand for those quick repairs. Includes many of the necessary bits and pieces for your wiring needs, making it an ideal kit for the home handyman, enthusiast or electrician. Supplied in a hard plastic carry case.

This kit contains:
- Pro Gas Soldering Iron with Spare Tips
- 115mm Stainless Steel Side Cutters (TH-1890)
- 3mm Desolder Braid (NS-3020)
- 140mm (5.5") High Quality Electrical Shears (TH-1758)
- Heavy Duty Wire Stripper/Cutter/Crimper with Wire Guide (TH-1827)
- 2.7mm Solder Splice Heatshrink - 5 pieces
- 4.5mm Solder Splice Heatshrink - 5 pieces
- 6mm Solder Splice Heatshrink - 5 pieces
- Heatshrink Pack:
  1.5mm: 40 x black, 10 x red, 10 x clear
  2.5mm: 25 x black, 5 x red, 5 x clear
  3mm: 17 x black, 4 x red, 4 x clear
  5mm: 14 x black, 3 x red, 3 x clear
  6mm: 6 x black, 2 x red, 2 x clear

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1114	$99.00	$88.95	$78.95

3 in 1 Function Heat Blower and Soldering Iron

A handy 3-in-1 unit with flame or flameless heat blower and soldering iron function. Great for general heating, drying, melting, soldering, heat shrinking etc. It also features adjustment for temperature control, Piezo ignition, child resistant latch and uses butane gas. The tip has a sturdy cap for when not in use.
Ideal for hobbyists and professionals alike.

Specifications	
Burning time	55-95min
Gas capacity	10ml
Temperature of hot blow	Up to 500°C
Temperature of soldering	Up to 450°C
Measures	144(L) x 35(W) x 23(D)mm

Spare Tip available: TH-1603
Butane gas required - use NA-1020

	Cat.	Qty 1+	Qty 3+	Qty 6+
Gas Soldering Iron	TH-1604	$29.95	$26.90	$23.70
Spare Tip				
1mm Conical Tip	TH-1603	$3.95	$3.45	$3.15

Mini Gas Soldering Tool Set

NEW 2013

A handy gas soldering iron with flame or flameless heat blower function. Great for general heating, drying, melting, cutting, soldering, heat shrinking etc. It also features adjustment for temperature control, Piezo ignition, retractable stand, visible gas tank and child resistant latch. The tip has a sturdy cap for when not in use. Carry case includes 1mm tip, 3mm chisel tip, 5mm angle tip, hot knife tip, 1mm solder hobby pack, cleaning sponge and tray.

Specifications	
Burning time	55-95min
Gas capacity	7ml
Power range	25W to 70W
Flame temp	Up to 1300 C
Iron dimensions	148(L) x 35(W) x 23(D)mm
Case dimensions	175(W) x 125(D) x 33(H)mm

Spare 1mm Conical Tip available: TH-1603
Butane gas required - use NA-1020

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1606	$44.95	$40.45	$35.90
1mm Conical Spare Tip	TH-1603	$3.95	$3.45	$3.15

Butane Gas

Use it for filling up your gas soldering iron, flame torches, cigarette lighters, etc. Includes five different adaptors, which cover most different gas valves. Includes filling instructions.

- Enough gas for many many refills
- Cannot be sent by post

MADE IN AUSTRALIA

5 adaptors supplied

	Cat.	Qty 1+	Qty 4+	Qty 10+
150g	NA-1020	$5.95	$5.25	$4.75

This colour pricebar denotes a Clearance item - check for specials.

GAS SOLDERING IRONS & TORCHES (CONTINUED)

Piezo Ignition Butane Gas Torch

Perfect for silver soldering, brazing, heat treating, heat-shrinking, paint removal etc. It's able to produce a flame about 100mm long, so is capable of more than light-duty work. The 64ml tank gives a burn time of 60-70 minutes and uses any butane gas. It also has an adjustable flame, a child-proof piezo ignition button and a stand so you don't knock it over and burn the house down.

- Piezo ignition with safety lock
- 1300° C adjustable flame
- Butane gas refill: NA-1020
- Dimensions 150 (H), base 69 x 69mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1660	$39.95	$35.90	$31.90

GAS SOLDERING IRONS - PORTASOL

A leading brand recognised worldwide. Portasol products are designed and manufactured in Ireland, to the highest quality standards. Since commencing operation in 1983, they have forged their way into the market with some of the most rugged and reliable gas powered soldering and heating tools in the world. They utilise catalytic combustion (flame tips excluded), which converts the gas flame into infrared radiation. It is a safe, flameless way of heating the tips evenly and continuously. They all use standard butane gas, and have a variety of tips available to support a wide range of applications.

Portasol Pro Piezo Gas Soldering Iron

The Portasol Pro Piezo is a powerful gas soldering iron featuring an adjustable temperature control allowing soldering tip temperatures up to 580°C. With equivalent electrical power of between 15 and 75 Watts, there is little that's not possible with this beauty. It incorporates a viewing window at the end of the gas tank, to keep an eye on the fuel level. The fuel tank fills in around 20 seconds, and will provide approximately 45 minutes of run time. Ignition is via the built in Piezo crystal mechanism, and the end cap provides safety gas shut off when replaced. The Portasol Pro Piezo is a dream to use, and will not let you down.

- 2.4mm double flat tip supplied.

Specifications	
Operating time	45 min (approx).
Refill time	20 sec (approx).
Ignition	Internal Piezo crystal ignitor.
Dimensions	178(L) x 22(Dia)mm.
Weight	75g without gas.

TIPS TO SUIT

1.0mm Chisel	TS-1311	$23.95
2.4mm Chisel	TS-1312	$23.95
4.8mm Chisel	TS-1313	$23.95
Hot Air Blow	TS-1314	$23.95
Hot Knife	TS-1315	$23.95
Flame	TS-1316	$23.95

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1310	$99.00	$88.95	$78.95

Portasol Pro Piezo Gas Soldering Tool Kit

This kit contains a Portasol Pro Piezo Gas Soldering Iron and the following.

- Quality storage case
- Cleaning sponge and tray
- 2.4mm double flat tip (TS-1312)
- Hot air blow (TS-1314)
- Hot knife tip (TS-1315)
- Hot air deflector
- Flame tip (TS-1316)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1318	$129.00	$115.95	$102.95

MONTHLY SPECIALS

Look out for our monthly promotions in store now!

Portasol Technic Gas Soldering Iron

The Portasol Technic combines compact power, and convenient reliability, making it one of the most versatile gas soldering irons available. It offers a run time of around 60 minutes, and tip temperature is adjustable up to 450°C. With equivalent electrical power of between 10 and 60 Watts, it is ready to tackle just about anything. The protective end cap features a built in flint type igniter, and if the gas is left on, it will turn it off when replaced. If a compact, versatile and reliable gas iron is what you're after, then the Portasol Technic is for you.

Specifications	
Operating time	60 min (approx).
Refill time	10 sec (approx).
Ignition	Flint ignitor in end cap.
Dimensions	170(L) x 19(Dia)mm.
Weight	60g without gas.

TIPS TO SUIT

1.0mm Conical	TS-1306	$23.95
2.4mm Chisel	TS-1307	$23.95
4.8mm Chisel	TS-1308	$23.95

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1305	$59.95	$53.95	$47.90

Portasol Super Pro Gas Soldering Iron

The Portasol Super Pro is the big brother of all irons in the range. It features adjustable tip temperature up to 580°C, with equivalent electrical power of between 25 and 125W! 125W may seem somewhat excessive to some. You don't need a V8 to drive around town, but it's nice to know that the power is there when it's needed isn't it? Ignition is achieved with the internal Piezo crystal mechanism, and run time is around 2 hours on a 30 second refill. The stainless steel finished gas tank features a viewing window to keep an eye on fuel level, & the protective end cap also acts as a safety cut off for the gas valve control when replaced. With the various tips available & huge power at hand, no job is a match for the Portasol Super Pro.

- 2.4mm tip supplied.

Specifications	
Operating time	120 min (approx).
Refill time	30 sec (approx).
Ignition	Internal Piezo crystal ignitor.
Dimensions	234(L) x 25(Dia)mm.
Weight	135g without gas.

TIPS TO SUIT

1.0mm Chisel	TS-1321	$24.95
2.4mm Chisel	TS-1322	$24.95
4.8mm Chisel	TS-1323	$24.95
Hot Air Blow	TS-1324	$24.95
Hot Knife	TS-1325	$24.95

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1320	$115.00	$103.95	$91.95

Portasol Super Pro Gas Soldering Tool Kit

Features 90 minute run time, 10 second fill, maximum 1300°C temperature and 40 second heat up. This kit contains a Portasol Super Pro Gas Soldering Iron and the following.

- Quality storage case
- 2.4mm double flat tip (TS-1322)
- Hot air blow (TS-1324)
- Hot air deflector
- Cleaning sponge and tray.
- 4.8mm double flat tip (TS-1323)
- Hot knife tip (TS-1325)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1328	$159.00	$142.95	$126.95

Soldering & Desoldering Accessories

SPARE TIPS FOR SUPERSEDED IRONS & STATIONS

TIPS TO SUIT TS-1425 100W SOLDERING GUN

	Cat.	Qty 1+	Qty 3+	Qty 6+
Pkt 2	TS-1426	$7.95	$6.95	$6.25

TIPS TO SUIT WELLER SOLDERING IRON (VARIOUS MODELS)

Weller Part	mm	°C	Cat.	Qty 1+	Qty 3+	Qty 6+
PTA6	1.6	315	TS-1352	$19.95	$17.70	$15.70

TIPS TO SUIT TS-1300 PORTASOL 50 GAS SOLDERING IRON

Type	mm	°C	Cat.	Qty 1+	Qty 3+	Qty 6+
Chisel	1.0	350	TS-1301	$9.95	$8.75	$7.75
Chisel	4.8	350	TS-1303	$9.95	$8.75	$7.75

SOLDER

Duratech Solder

60% TIN / 40% LEAD

Two sizes available, 1.0mm and 0.71mm diameter

- 0.71mm is ideal for work with ICs and all fine soldering
- Both types are resin cored
- Hobbypacks are supplied in easy to use cannisters

1KG ROLLS

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3002	$54.95	$49.45	$43.90
1.00mm	NS-3015	$54.95	$49.45	$43.90

200G ROLLS

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3005	$12.95	$11.35	$10.35
1.00mm	NS-3010	$12.95	$11.35	$10.35

HOBBYPACK CANNISTERS

- Contains 15-20 grams weight.

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3008	$1.85	$1.65	$1.45
1.00mm	NS-3013	$1.85	$1.65	$1.45

Lead-Free Solders

99.3% tin, 0.7% copper lead-free. Sizes for every application from hobby to industry.

200G ROLLS

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3088	$17.95	$16.70	$14.35
1.00mm	NS-3094	$17.95	$16.70	$14.35

500G ROLLS

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3090	$42.00	$39.45	$33.45
1.00mm	NS-3096	$42.00	$39.45	$33.45

HOBBYPACK CANNISTERS

- Contains 15-20 grams weight.

	Cat.	Qty 1+	Qty 3+	Qty 6+
0.71mm	NS-3086	$2.95	$2.75	$2.30
1.00mm	NS-3092	$2.95	$2.75	$2.30

SOLDERING ACCESSORIES

Solder Flux Pen 12ml

A quick drying, no-clean flux for use when removing or replacing surface mount components. Applying the flux to solder joints will aid re-flow when heating the joint to remove the component, or it can be applied to bare copper or tinned tracks providing excellent solderability.

- Dries in 5 to 10mins.
- Handy 12ml pen with chisel tip.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	NS-3036	$11.95	$10.70	$9.50

Solder Flux Gel 10g Syringe

A mildly activated, resin-based flux formulation developed for a wide range of applications, leaving a pin-probable residue. The superior wetting ability results in bright, smooth, shiny solder joints. It also has very low post-process residue, which remains crystal clear and probable even at the elevated temperatures required for todays lead free solders. Reduces or eliminates voiding and also offers high humidity tolerance and a chemistry developed for use in air reflow.

- 10g syringe pack
- Suitable for lead-free solders
- Probable residue

	Cat.	Qty 1+	Qty 3+	Qty 6+
	NS-3039	$14.95	$13.35	$11.70

Plastic Desolder Tool

ABS plastic body with strong suction. Unit is very easily cleaned, coming apart in seconds.

- Total length inc. tip 195mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Tool	TH-1860	$11.95	$10.70	$9.50
Spare tip	TH-1861	$3.95	$3.45	$3.15

Metal Desolder Tool

This desolder tool is made of lightweight metal and has strong suction.

- Constant vacuum force
- Automatically cleans itself with each action
- Very little recoil
- Replacement tip (Teflon)
- One hand operation
- Designed for long life
- A quality product
- Total length including tip - 195mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Tool	TH-1862	$16.95	$14.95	$13.35
Spare tip	TH-1863	$4.95	$4.45	$3.90

Deluxe GOOT Desoldering Tool

This is a high quality GOOT brand desoldering tool. It features Japanese built quality and a large vacuum chamber for extremely strong suction.

- Made in Japan
- Large vacuum chamber
- Total length: 330mm

TECH TIP!
JAPANESE MADE

	Cat.	Qty 1+	Qty 3+	Qty 6+
Tool	TH-1856	$27.95	$24.95	$22.35
Spare tip	TH-1857	$8.95	$7.95	$6.95

3mm Desolder Braid

A specially treated piece of braid for removing solder from a PCB. Place the braid over the solder and apply soldering iron to efficiently remove solder. 3mm wide, 120mm long.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	NS-3020	$3.25	$2.90	$2.60

GOOT Desolder Braid

High quality Goot brand Gootwick, made in Japan

- Contains wash-free RMA flux and conforms to MIL-F-14256F
- Supplied in plastic reels
- 1.5m long

TECH TIP!
JAPANESE MADE

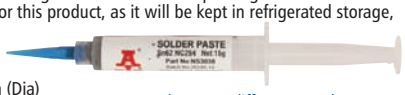
	Cat.	Qty 1+	Qty 3+	Qty 6+
1.5mm wide	NS-3026	$5.95	$5.25	$4.75
2.0mm wide	NS-3027	$5.95	$5.25	$4.75
3.0mm wide	NS-3028	$5.95	$5.25	$4.75

SOLDERING ACCESSORIES (CONTINUED)

Solder Paste SMD Syringe 15G

Ideal for surface mount work and rework, solder paste provides a quick and easy soldering solution. Supplied in a syringe for easy application, simply apply it to the soldering pads, put your components in place and heat it with your soldering iron. Solder paste can go off in storage: we've found a local supplier so you can always be confident that the paste you get will be fresh. 63% tin 37% lead.

Solder paste is best kept cool for long life and should be kept refrigerated. For this reason, please ask sales staff for this product, as it will be kept in refrigerated storage, not on display.



- Size: 15 grams
- Dimensions: 120 (L) x 15mm (Dia)

Note: Product may differ to one shown

	Cat.	Qty 1+	Qty 3+	Qty 6+
	NS-3046	$12.95	$11.35	$10.35

Soldering Iron Tip Cleaning Paste

Keep your soldering iron tip in the best possible condition. A healthy tip makes for easier soldering and better heat transfer. This tip contains powdered solder and non-corrosive flux, so all you need to do is dip your hot soldering tip in, and it will clean and tin in one simple action.

- Supplied in a 15g tin

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1512	$12.95	$11.35	$10.35

Goot Soldering Iron Tip Cleaner

This tip cleaner eliminates the temperature variation associated with the wet sponge approach and does a better job. The "curly brass" insert doesn't need to be kept wet and cleans without damaging the tip. Uniform iron temperature ensures consistent joint quality and reduces cycle times. It's made from a heavy-duty heat-resistant rubber base that won't slip around on the bench, is static-safe and is also suitable for lead-free solders.

- Supplied with spare insert
- Dimensions Insert: 45(Dia.) x 30(H)mm
  Overall: 58(Dia.) x 58(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1510	$17.95	$15.95	$14.35

Solder Sucker & Blower Bulb

A quick & simple bulb type solder sucker that is cheap, compact and effective. Buy two or three and you will always have one handy

- Approximately 50(D) x 110(L)mm
- Versatile! Suck or blow

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1850	$6.95	$6.25	$5.50

Economy Soldering Iron Stand

General-purpose stand for just about any electronics soldering iron. It has a large, thirsty tip-cleaning sponge & pressed metal base.

- Spare sponge Cat TS-1503
- Base: 84(W)x 130(D) x 25(H)mm
- Holder: 105(L) x 40(W)mm
- Complete height: 120mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Stand	TS-1502	$9.95	$8.75	$7.75
Spare sponge	TS-1503	$2.75	$2.45	$2.15

Deluxe Soldering Iron Stand

Ideal for heavier soldering irons. It features a hefty cast iron base with removable sponge tray and twin spiral iron holder.

- Spare sponge: Cat. TS-1508
- Base: 78W x 115(D) x 30(H)mm
- Holder: 135(L) x 45(W)mm
- Complete height: 145mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Stand	TS-1507	$16.95	$14.95	$13.35
Spare sponge	TS-1508	$3.95	$3.45	$3.15

Solder Stand with Solder Reel Dispenser

Every technician needs one of these on their workbench! It will hold our solder reels and the solder is fed through the guide. It has a handle, so it can easily be carried, and it can be wall mounted to be right there where you always need it. The base is super heavy so even when the solder reel is nearly empty it will feed ok.

- Also good for field service work
- Shaft diameter is 16mm
- Will hold our 1kg rolls
- Weight 620g
- Dimensions: 90(L) x 100(W) x 110(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1504	$17.95	$15.95	$14.35

Solder Fume Extractor

Designed to remove dangerous solder fumes from the work area. Suitable for use in production lines, service centres, R&D workbenches or the hobbyist. It incorporates a ball bearing high volume fan to maximise airflow which is directed upwards at the rear of the unit to aid in safe dispersion of fumes. ESD safe.

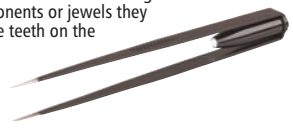
- Spare filter - sold separately Cat.TS-1581
- Dimensions: 260(H) x 200(W) x 170(D)mm

Don't pay silly prices elsewhere. This one works fine.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Fume Extractor	TS-1580	$69.95	$62.95	$55.95
Spare Filter	TS-1581	$9.95	$8.75	$7.75

ESD Safe Tweezers with LED Illumination

NEW 2013



These precision tip tweezers are ideal for picking up tiny objects with the added benefit of a LED light to illuminate the item being handled. Ideal for working with SMD components or jewels they are ESD (Electronic Discharge) safe and have teeth on the tip to ensure reliable grip on items.

- Includes 3 x SR41 batteries
- Dimensions: 155(L) x 15(W) x 10(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1761	$9.95	$8.75	$7.75

PCB Holder with Magnifying Glass

Any time you need that extra bit of help with your PCB assembly, this pair of helping hands will get you out of trouble. With a 90mm magnifying glass, it also provides an extra pair of eyes. Infinitely adjustable for height and any working angle you may need. The two alligator clips provide secure support for boards as small as 32mm wide. Mainly intended for PCB assembly, this handy tool can be adapted for countless other uses in the workshop or around the house.

- 3 x Magnification
- Dimensions:
  Base: 78 x 98mm
  Height: 145mm

PCB NOT INCLUDED

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1983	$12.95	$11.35	$10.35

Stethoscope

Listen for mechanical noises in equipment

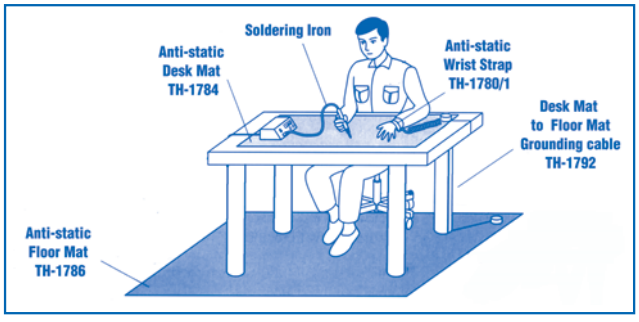
- A very handy diagnostic tool with plenty of non-medical uses

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7255	$14.95	$13.35	$11.70

Anti-static Treatment

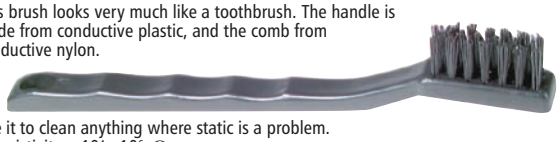
ANTI-STATIC PRODUCTS

Static control - both in the workshop/factory and in the field - is becoming increasingly important for reliable manufacture, repair and or installation of large surface mount LSI based boards. We offer a complete line of static control products for virtually any situation.



Conductive Brush

This brush looks very much like a toothbrush. The handle is made from conductive plastic, and the comb from conductive nylon.



Use it to clean anything where static is a problem.
- Resistivity: - 10^4 - 10^6 Ω.
- Length 178mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1775	$9.95	$8.75	$7.75

Anti-Static Workplace Desk Mat

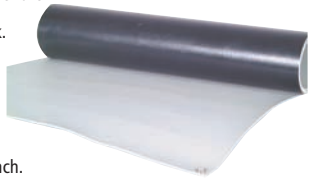
This anti-static mat measures 555(W) x 290(D)mm and is ideal for anyone who manufactures, repairs or services sensitive electronic equipment. It is about 3mm thick, has a hard wearing face over a dense sponge rubber base. Can also be used as an anti-static base for computer keyboard.

- Top colour is grey.
- See opposite for connecting leads.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1783	$19.95	$17.70	$15.70

Large Anti-Static Workplace Desk Mat

This anti-static dissipative desk mat will cover the whole top of a desk or work station. It measures 1 metre x 0.5 metres x 3mm thick. The mat is grey in colour and made of anti-static foam plastic. The surface of the mat has a slight grain texture, whilst the underside has a checker pattern to prevent slipping on the bench top.

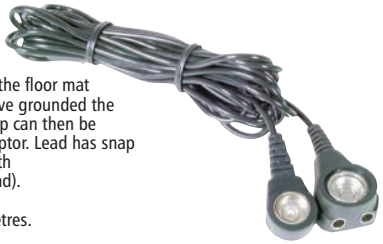


- Resistivity: Anti-static layer 10^8 - 10^{10} Ω/inch.
- Conductive layer 10^4 - 10^6 Ω/inch.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1784	$49.95	$44.90	$39.90

Desk Mat to Floor Mat Grounding Cable

Use this lead if you are using both the floor mat and desk mat. (You will need to have grounded the floor mat). The anti-static wrist strap can then be plugged into this leads double adaptor. Lead has snap connectors both ends - one end with double banana socket (desk mat end).



- Cable length approximately 3 metres.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1792	$13.95	$12.35	$10.95

Anti-Static Floor Mat

This anti-static floor mat is made from conductive PVC sheet combined with high density PVC foam. The top layer is grey with green fleck in colour, and the bottom is black. Resistivity is: 10^9 -10^{11} Ω/inch for the top layer, and 10^4 - 10^6 Ω/inch for the bottom layer.

- Size is 2 metres x 1 metre x 2mm thick.
- See below for grounding leads.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1786	$199.00	$178.95	$158.95

Anti-Static Wrist Strap

Use when static electricity is a problem when soldering, changing ICs and installing expansion cards in computers etc. Static charges can destroy ICs instantly. Consists of adjustable Velcro wrist strap, coiled lead and banana plug/alligator clip.

- Expanded lead length about 1.8m

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1780	$13.95	$12.35	$10.95

Anti-Static Wrist Strap

Similar to the unit above, this strap has an extra long coiled lead of 3m/10ft extender. This makes it ideal for moving about your workbench without having to unclip yourself to do so. An elasticised wrist strap is also included, along with banana plug/alligator clip.

- Colour may vary.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1781	$17.95	$15.95	$14.35

Desk Grounding Cable

This lead is to ground workplace desk mats. It clips over the stud fastener on any mat, and has a receptacle for 2 banana plugs. The other end of the lead has a banana plug, and an alligator clip that slips over the banana plug for earth connection. The anti-static wrist strap then plugs into the socket above the stud fastener clip. 2 wrist straps can be plugged in if required.

- Cable length is approximately 3 metres.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1791	$13.95	$12.35	$10.95

Anti-Static Field Service Mat / Bag

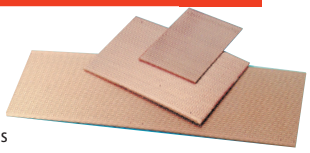
This mat is ideal for field service people, who need an anti-static work area when on the move. The mat folds out to a work area of approximately 600 x 600mm. At one end there are 2 pouches, and a ground lead and wrist strap are included.
A very useful tool.

- Pouch size approx: 200 x 300mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1776	$49.95	$44.90	$39.90

PCB EXPERIMENTING & PROTOTYPE

PC Boards - Vero Type Strip



Alphanumeric grid,
pre-drilled 0.9mm,
2.5mm spacing.

- Dimensions: 95mm wide x 3 handy lengths

	Cat.	Qty 1+	Qty 4+	Qty 10+
76mm	HP-9540	$4.50	$3.95	$3.60
152mm	HP-9542	$7.95	$6.95	$6.25
303mm	HP-9544	$11.50	$10.35	$8.95

Universal Pre-Punched Experimenter's Boards

The low cost way to build prototype or one-off projects. We now stock 3 sizes of phenolic board that has a matrix of punched holes on 0.1" (2.5mm) pitch with 'donut' of tin plated copper around each hole. Finally the non-solder side of the board has an alphanumeric grid printed on it to assist in the component identification board layout.

Close up

SMALL
95 x 72mm, 25 x 30 holes (750) 3.6mm edge pitch.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9550	$4.50	$3.95	$3.60

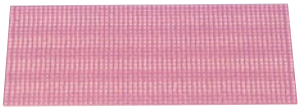
MEDIUM
140 x 95mm, 29 x 50 holes (1450) 2.5mm edge pitch.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9552	$6.95	$6.25	$5.50

LARGE
210 x 78mm, 24 x 67 holes (1608) 3.6mm edge pitch.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9554	$8.95	$7.95	$6.95

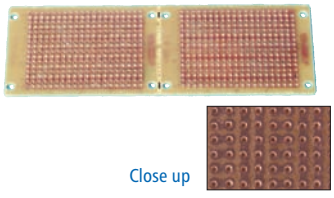
Unclad Punched Laminate



A single 150(L) x 70(W)mm strip of phenolic punched at 0.1" (2.5mm) grid with NO laminate (copper) on either side.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9562	$5.50	$4.90	$4.30

Ultra Mini Experimenter's Boards



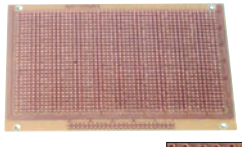
20 holes deep by 16 holes wide with "links" and "strips" (bus rails) every 2 holes. Board measures a compact 65 x 45mm and is extremely versatile. Supplied as a pair, end-to-end. Can be snapped apart to make two boards (dimensions above) or one 130 x 45mm 0.3" wide x 0.1" pitch.

- Ideal for DIL ICs in small numbers.

Close up

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9556	$4.95	$4.45	$3.90

IC Experimenter's Board



You can fit dozens of DIL ICs on this board. 30 holes deep x 50 holes wide, with a "link"/"strip" (bus rails) pattern enabling alternate V+ and earth rails. Very versatile.

- Alphanumeric markings on grid pattern
- Dimensions: 140 x 95mm

Close up

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-9558	$6.95	$6.25	$5.50

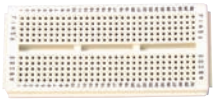
Spot Face Cutter for Strip Boards

The spot face cutter is designed to neatly remove copper strip on strip type prototyping boards. Insert the tool in the pre-drilled hole and rotate it until the track is removed entirely. Easy to use and much more efficient than other methods.

- Dimensions:
  Handle: 60(L) x 17(W) x 17(D)mm
  Total Length: 110mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2461	$8.95	$8.25	$6.95

Mini Breadboard



One terminal strip supplied which gives 30 holes x 10. Total 300 holes.

- Dimensions: 39(W) x 87(L)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8832	$9.95	$8.75	$7.75

Breadboard

- 840 tie points
- 200 distribution holes
- 640 terminal holes (Simply a combination of 2 x Distribution strip + 1 Terminal strip)
- Dimensions: 65(W) x 175(L)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8814	$19.95	$17.70	$15.70

Breadboard

- 1680 tie points.
- 400 distribution holes.
- 1280 terminal holes.
- Mounted on a metal plate.
- 3 banana terminals.
- Rubber feet.
- Dimensions: 157(W) x 237(H)mm.
- Board size: 130(W) x 175(H)mm.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8816	$39.95	$35.90	$31.90

Breadboard Jumper Kit

This kit consists of 70 pcs of single core sturdy wire which has been stripped on each end and bent at right angles.

- Specifically made for breadboards
- There are 5 pcs each of 14 different lengths.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8850	$11.95	$10.70	$9.50

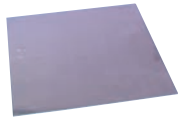
Economy Breadboard Jumper Kit

Solid core hookup cable, which is the ideal size for breadboards. Cut it to whatever lengths you require and strip the ends.

2 METRES EACH OF 5 COLOURS
Colours may vary from time to time.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Per Pack	WH-3032	$3.45	$3.05	$2.70

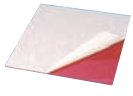
Aluminium Sheet



18 gauge 295 x 295mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HM-9500	$13.95	$12.35	$10.95

Perspex - Red or Grey



- 195 x 195mm.
- 3mm thick.
- Supplied with peel-off film

	Cat.	Qty 1+	Qty 4+	Qty 10+
Red	HM-9505	$13.95	$12.35	$10.95
Grey	HM-9507	$13.95	$12.35	$10.95

Clear Acrylic Sheet

General purpose clear acrylic (Perspex) sheet for hobby use. Suitable for displays etc.

- Dimensions: 195 x 195 x 3mm
- Supplied with peel-off protection film

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HM-9509	$13.95	$12.35	$10.95

Thermal Transfer Tape 100 x 100 x 0.5mm - Pack 2

When it comes to attaching devices like star LED modules to heatsinks, it's often not easy as they don't have screw "eyes" like a TO-220 transistor package. The material is self adhesive and provides good thermal conductivity making it easy for chipsets, LED modules, memory modules etc.

- 2pcs of 100mm x 100mm sheets supplied. 0.5mm thickness
- Supplied with peel-off protection film

Specifications	
Thermal conductivity	1.6 W/m-k
Flammability level	UL94V-O
Working temperature range	-60 to +250°C
Insulation strength	>7,000V/mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NM-2790	$12.95	$11.35	$10.35

Electronic Circuit Fabrication

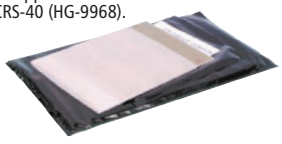
PCB EXPERIMENTING & PROTOTYPING (CONTINUED)

Riston UV/PCB Developing System

This is basically blank printed circuit board, with a photo-resist. A photo-resist is a coated chemical that changes composition when exposed to light. The PCB Riston is placed on a flat surface, and your negative artwork is then sandwiched between a sheet of glass and the Riston PCB. You can expose the PCB pattern and board in broad daylight, however a controlled source of UV is recommended. After the recommended exposure time, you remove the PCB pattern. Where the Riston was in shadow the photo-resist will not have changed chemical composition. Where it has been exposed it will. You then apply the Developer (HG-9964) to complete the process. The copper tracks will still have the Riston present, and this must be removed with Stripper CRS-40 (HG-9968).

Riston PCB

Blue negative acting. FR4 fibreglass material.
- Single sided



152 X 152MM

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HG-9970	$24.95	$22.35	$19.70

152 X 305MM

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HG-9972	$59.95	$53.95	$47.90

Riston Stripper & Developer

Stripper required to clean board before soldering.
- 600ml bottle

CRS-40/5 CRD30

	Cat.	Qty 1+	Qty 4+	Qty 10+
Stripper	HG-9968	$9.95	$8.75	$7.75
Developer	HG-9964	$7.95	$6.95	$6.25

Etch Resistant Pen (Dalo Pen)

This looks like a normal felt tip pen but it isn't. You simply draw on a clean piece of blank copper clad PCB. The ink from the pen is etch resistant so you have a quick and simple way of making that PCB! The ink will wash off afterwards with metho, turps, etc.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	TM-3000	$9.95	$8.75	$7.75

PCB Etching Kit

An ideal kit for anyone needing to etch a circuit board - complete with an assortment of copper boards, etchant, working bath and tweezers. It also includes a positive acting photosensitive PCB and developer.
Supplied with:
1 x Plastic bath to accept PCBs up to 180 x 110mm
1 x Photosensitive single sided PCB
1 x Sachet of positive developer for Riston
1 x 100g sachet of sodium persulphate etchant
1 x Plastic tweezers
Assortment of PCB's, instructions

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HG-9990	$27.95	$24.95	$22.35

Ammonium Persulphate - 400gm

The alternative to ferric chloride. Mix contents (400 grams) with 1.5 litres of hot water to etch copper boards. The contents will treat about 500sq/cm of PCBs.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NC-4254	$12.95	$11.35	$10.35

Etch Your Own PC Boards Booklet

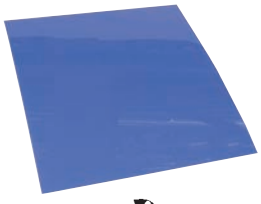
Need just one or two printed circuit boards, for a magazine project or a prototype for your latest design? It's not too hard to etch your own single sided or even double sided boards, especially if you have access to a photocopier or a PC and laser printer. In this tech update we tell you all you need to know.

BOOK AVAILABLE

	Cat.	Qty 1+
	BI-8212	$2.00

Press 'n' Peel Film

This is by far the easiest way to make Printed Circuit Boards from CAD software or magazine PCB layout artwork. You simply make the PCB image by putting a Press 'n' Peel sheet of transfer film in the paper tray of a photocopier or laser printer (The sheet size is almost the same as the A4 paper tray). You then print or copy the PCB track image onto the film. Using a domestic clothes iron you press the image onto a precleaned piece of copper clad PCB. The image transfers to the copper and the image will not etch away. Ammonium persulphate or ferric chloride are both OK. You get 5 sheets of 215 x 280mm transfer film in each pack.
Full instructions are supplied.



MADE IN USA

4 Easy Steps:
1. Print or Copy 2. Iron on 3. Peel off 4. Etch

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HG-9980	$35.00	$31.45	$27.95

Blank Fibreglass PCB

Pure copper bonded to quality fibreglass base.
- HP-9514, 9512, 9510 are single sided
- HP-9515 is double sided

mm	Cat.	Qty 1+	Qty 4+	Qty 10+
150x75	HP-9514	$5.95	$5.25	$4.75
150x150	HP-9512	$8.95	$7.95	$6.95
150x150	HP-9515	$9.50	$8.50	$7.50
300x300	HP-9510	$19.95	$17.70	$15.70

Deoxit ProGold Contact Cleaner & Rejuvenator

Simple cleaners wash away dirt, grime, and dust from your expensive equipment but are often ineffective at cleaning tough oxidation and metal sulphide contamination. This product will not only clean, but it will help restore your equipment to its original condition, improving its performance.

- Kit contains:
  DeoxIT power booster 7.4ml
  DeoxIT ProGold conditioning treatment 7.4ml
  2 x brush applicators
  4 x swabs
  Lint free cloth

	Cat.	Qty 1+	Qty 4+	Qty 10+
Aerosol	NS-1434	$24.95	$22.35	$19.70
Kit	NS-1436	$24.95	$22.35	$19.70

Silver Conductive Pen

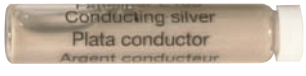
This is a highly conductive polymer for use in a variety of applications and is an indispensable tool for fixing damaged circuit board tracks. The pen can also be used to draw new tracks on circuit boards, making jumpers, or even designing prototype circuit boards. It is suitable for use on most surfaces and has excellent adhesion and abrasion resistance properties. Tracks can even be soldered after heat curing.

- 1mm track trace width
- 0.02 Ohm per mm resistivity

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NS-3033	$29.95	$26.90	$23.70

RELATED PRODUCT...
For solder, lead free solder, solder paste and flux see page 56.

Silver Conductive Varnish



This silver conductive varnish adheres well to glass, PCB material, ceramics etc. Repairs printed circuits, window antennas, window alarm loops etc. Very good conducting properties.

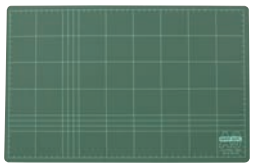
- Approximately 0.02 - 0.1 Ohms/cm^2.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NS-3030	$12.95	$11.35	$10.35

PCB EXPERIMENTING & PROTOTYPING (CONTINUED)

Benchtop Work Mat

Protect your benchtop. This durable A3 size PVC cutting mat is just the thing to protect your work benchtop. You can cut on it, solder, write on it, and not damage your workplace. The mat is 3mm thick, and measures 450 x 300mm.



Cat.	Qty 1+	Qty 3+	Qty 6+
HM-8100	$12.95	$11.35	$10.35

Polymorph Pellets

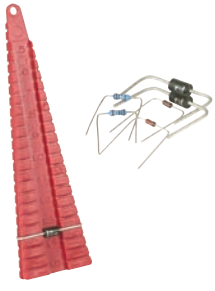
Polymorph will change the way you make parts. It's a commercial grade thermoplastic that softens enough to be formed into any shape at around 62 - 65° C. You simply heat the pellets in hot water. It hardens at room temperature to form a tough plastic material similar in consistency and colour to Nylon. It can be drilled, sanded, ground, machined, painted or heated and reformed again and again. Endless uses in model making, craft, single part manufacture, prototyping, engineering, science, lab and more. Supplied in a 100g bag of 3mm pellets.

Cat.	Qty 1+	Qty 4+	Qty 10+
NP-4260	$11.50	$10.35	$8.95

Component Lead Forming Tool

Get the hole spacing for your resistors and diodes perfect every time. This handy forming tool provides uniform hole spacing from 10 to 38mm. Suitable for production assembly, education and training. The tool is double sided with one side for use with DO47 outline diodes (eg 1N914) and 1W zener diodes; the other side being suitable for 1/4W resistors, DO41 outline diodes (eg 1N4004). An incredibly handy tool!

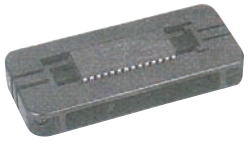
- Dimensions: 138(L)mm
- Made in USA from engineering plastic.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1810	$7.95	$6.95	$6.25

Universal IC Pin Straightener

A simple and effective tool to straighten and align bent IC pins. Accommodates standard ICs from 8 to 48 pins.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1814	$11.95	$10.70	$9.50

RELATED PRODUCT...
See page 43 for other Watchmaker Tools

Pin Extractor Press

A handy little pin-extractor/inserter press with a 0.8mm punch. Mainly intended for taking links out of watch bands, but endless other uses for jewellery making, modelmaking and hobbies.

- 2 spare pin punches
- Assortment of 12 pins

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-2014	$9.95	$9.25	$7.75

OPEN A STORE ACCOUNT WITH JAYCAR

Jaycar is now accepting account applications from all established companies who can exhibit good trade references. For application details see our Store Managers.

Soldering Heatsink & Component Holder

This quality small tool is ideal as a heatsink when soldering to remove some of the heat from the semiconductor/component while soldering. It can also be used to hold small parts while soldering to avoid burnt fingers.

- Supplied with insulated handles, and length is 65mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2122	$6.95	$6.25	$5.50

IC Extractor

Deceptively simple looking device.

- One piece metal construction
- 8 - 40 pins

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1818	$2.95	$2.60	$2.30

PLCC Extractor

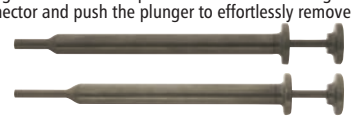
There's really only one way to remove a PLCC safely - and this is it. Basically a spring assisted clip carrier extractor, specifically designed for the safe and hassle free removal of PLCCs from sockets.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1816	$11.95	$10.70	$9.50

Pin Extraction Tool

Take the frustration out of removing Molex connector pins with these time saving tools. Simply slide the tool over the connector and push the plunger to effortlessly remove the pin. Both male and female pin extractors available.

Male Pin Extractor TH-1730
Female Pin Extractor TH-1732



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1730	$17.95	$15.95	$14.35
TH-1732	$17.95	$15.95	$14.35

Budget SMD Vacuum Pickup Tool

This handy workshop SMD component pickup tool fits into your pocket and uses vacuum pressure to pick up your sensitive components without damaging them. An amazingly useful tool!

- Easy to use, one-hand operation.
- Picks up to 20g in weight.
- Supplied with 3 vacuum pads.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1978	$17.95	$15.95	$14.35

Pearl Catch

Incredibly handy tool for those moments when you need to pick up small fiddly bits and pieces.

- Will clip to and hold small nuts, bolts, washers, transistors, resistors, etc
- Metal construction

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1842	$9.95	$8.75	$7.75

Anti-Magnetic Precision Tweezers

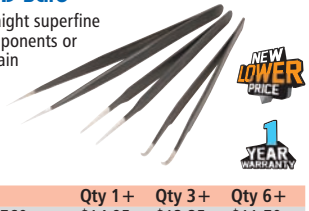
These are high quality tweezers made from anti-magnetic, anti acid steel. Perfect for handling SMD components, jewels or general electronic components.
- Length 110mm. • Supplied with protective nylon cap.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1754	$4.45	$3.95	$3.45

Stainless Steel Tweezer Set - ESD Safe

A set of 3; duckbill head, angled fine and straight superfine enable you to manipulate surface mount components or other tiny items with ease. ESD coating on main body of tweezers greatly reduces static discharge issues.

- Measures: Angled & duckbill 120mm, superfine 135mm



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1760	$14.95	$13.35	$11.70

Electronic Circuit Fabrication & Magnifiers

PCB EXPERIMENTING & PROTOTYPING (CONTINUED)

Stainless Steel Tweezer Set

A set of 4 tweezers, three supplied with vinyl handles, comprising:
1 x self closing pointed type
1 x long curved pointed type
1 x long fine pointed type
1 x flat spatula type
Approximate length 115mm.

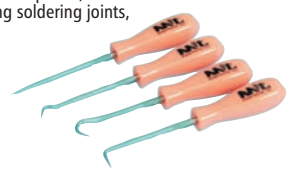
1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1752	$8.95	$7.95	$6.95

4 Piece Mini Pick & Hook Set

These hook tools have stainless steel heat treated points, and are ideal for use on O-rings, springs, snap rings, washers, checking soldering joints, general hobbyist kit building, and probing into things, etc.

Hooks are:
- straight pick
- 90° hook
- full hook
- small angle hook.

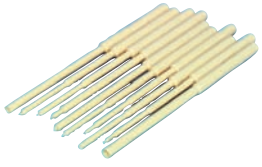


Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1762	$15.95	$14.35	$12.70

10 Piece Alignment Tool Set

Set of 10 low cost plastic alignment tools.

- Length 114mm.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1806	$6.95	$6.50	$5.50

Artwork Knife

Light duty precision knife with safety cap. Ideal for fine angle cuts, etching, hollowing, scoring, scraping, scribing, stripping and trimming. Four piece jaw chuck method of blade retention.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Knife	HG-9955	$4.95	$4.45	$3.90
Blades Pkt 5	HG-9956	$3.95	$3.45	$3.15

Scriber

This pen type tool will scribe on metal, glass, plastic, ceramics and tools. Stylus is made of tungsten steel. Looks like a pen, and has a pocket clip. Length 110mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2120	$7.95	$6.95	$6.25

Automatic Centre Punch

This handy tool allows you to make a centre punch mark with one hand. You simply hold the unit against where you would want a centre punch mark, apply downward pressure until the internal hammer mechanism trips. The pressure is adjustable, depending on the hardness of the surface. Sturdy brass body with hardened steel centre punch. 125 mm long overall.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1770	$7.95	$6.95	$6.25

PRODUCT DATA

We now have so much data and fact sheets we cannot fit it all here! Check our website for over 3,500 pages of data!

MORE INFO WEB

LABORATORY MAGNIFIERS & LAMPS

Eye Magnifier

This 3 times magnifier is handy for checking PC boards, looking at stamps or coins, jewellery, etc, etc.
- Every hobbyist should have one.
- Dimensions: 28(H) x 22(dia view area) x 40(dia base)mm.

Cat.	Qty 1+	Qty 5+	Qty 10+
QM-3515	$8.95	$7.95	$6.95

Micro Magnifier with LED

Having trouble reading or working on your hobby in fading or poor light? This convenient pocket-size magnifier with super bright LEDs allows you to work or read for longer periods. Comes complete with a soft pouch for easy storage. Ideal to take travelling or camping.

- 2 Super bright white LEDs
- 3 X magnification with super 5 X magnifier
- One touch ON/OFF operation
- Measures: 90(H) x 58(W) x 6(D)mm

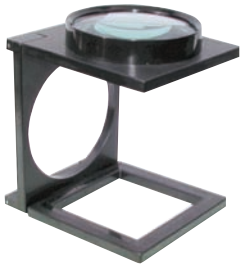
Cat.	Qty 1+	Qty 5+	Qty 10+
QM-3531	$9.95	$8.75	$7.75

RELATED PRODUCT...
See our range of Digital Microscopes on page 104

Magnifying Glass

This huge 4.5" diameter viewer allows hands free operation. It will fold into a neat and easy to store package.

NEW LOWER PRICE



Cat.	Qty 1+	Qty 5+	Qty 10+
QM-3505	$8.95	$7.95	$6.95

Paperweight LED Magnifier

Keep one on your desk for those times when you can't find your reading glasses. It will keep your errant papers under control and give you a 70mm diameter 4x magnifier so you can read them easily. With 4 LEDs for illumination and powered by a CR2032 battery.

- Case and battery included
- Dimensions: 100(Dia) x 50(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
QM-3538	$24.95	$22.35	$19.70

50x Magnifier with Cover to suit iPhone® 4/5

NEW 2013

A handy iPhone® magnifier for technicians, jewellers, and model car/plane builders. Simply attach it to the back of your iPhone® to see a greatly magnified view of objects on your phones screen.

Included are two brackets, one suitable for iPhone® 4s and one suitable for iPhone® 5.

- Magnification: 50x
- Dimensions: 117(L) x 61(W) x 11(H)mm

iPhone® not included

Cat.	Qty 1+	Qty 5+	Qty 10+
QM-3516	$19.95	$17.70	$15.70

LABORATORY MAGNIFIERS & LAMPS (CONTINUED)

LED Headband Magnifier

This magnifying headset leaves both hands free and can be worn over prescription or safety glasses. It also has a built-in LED light that can be rotated up, down or side to side to illuminate your work. There are three lenses that can be used in combinations to give 1.5x, 3x, 8.5x or 10x magnification. The head strap is fully adjustable and locks into position and the lens assembly can be swivelled up out of the way when not in use. A multitude of uses including lapidary, jewellery, model-making, electronics and camera repair.

- Requires 2 x AAA batteries

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3511	$29.95	$26.90	$23.70

Magnifying Lens with LEDs

Ideal for the elderly or vision-impaired. Keep one in the glovebox for reading the street directory in the dark.

- Big, clear 90mm lens illuminated by two LEDs
- Requires 2 x AAA batteries
- Dual magnification: 3X & 5X
- Case and cleaning cloth included
- Dimensions: 90(Dia.) x 160(L)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3537	$9.95	$8.75	$7.75

RELATED PRODUCT...

See our range of Watch Maker & Micro Repair tools on page 43.

10x LED Magnifier with Scale

With all metal construction and glass optics, this superb little magnifier provides 10 dioptre magnification with razor-sharp clarity. Inside the viewer is a graduated scale in metric and imperial graduations so you can actually take measurements of an object down to fractions of a millimetre. Three LEDs and the 26mm eyepiece provide crystal-clear even illumination of the subject. Ideal for checking PCBs in pre-production, lab, science, education or engineering applications.
2x AA batteries included.

- 10x magnification
- All metal construction
- Satin chrome finish
- Ground glass optics
- Dimensions: 180(L)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3539	$29.95	$26.90	$23.70

6/12 LED Magnifying Glass

Extremely robust, this is not the kind of magnifier you keep in the desk and bring out occasionally. All metal construction makes it ideal for the lab, workshop or photography studio. The high quality glass lens provides superior optics. 12 LEDs ensure ample illumination for your work and can be switched to a low power setting of 6 LEDs.

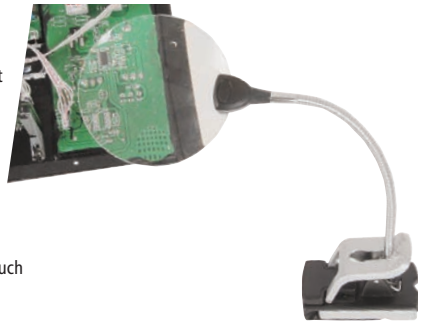
- Zip nylon carry case
- 85mm lens diameter
- 3.5x dioptre magnification
- Requires 2 x AA batteries
- Dimenesions: 240(L) x 110(Dia.)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3534	$39.95	$35.90	$31.90

Illuminated Gooseneck Magnifier

The gooseneck magnifier is a valuable accessory for coin/stamp collectors, photography etc. The 2X main lens and 5X insert lens with the bonus of 2 LED lights, is a welcome addition for any hobbyist. The magnifier is clip-on or free standing. Suitable for most flat surfaces or workplace incline up to 38mm thick. The flexible metal arm ensures that you can position the magnifier just where it's needed.

This handy magnifier also comes with a soft protective pouch for your lens to protect it from dirt and dust. It also has metal stablisers to ensure that your magnifier remains stable while working.



- Stands 225mm high
- Includes protective lens pouch
- Lens Diameter: 110mm
- Requires 3 x AAA batteries

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3532	$29.95	$26.90	$23.70

Desktop Lab LED Magnifying Lamp

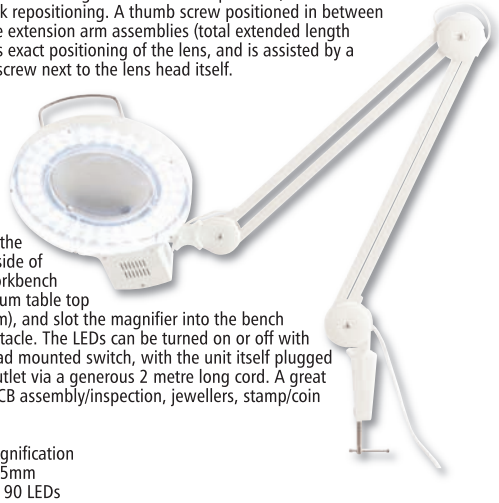
No more fluorescent tubes to replace on your maggy lamp. Sixty LEDs provide ample illumination, perfectly even light and the 3x and 12x magnifying lenses show all the detail you need. Being LED, there's no delay in startup and they'll never need replacing. Ideal for hobbies, model making or jewellery.

- Dimensions: 320(H) x 95(Dia.)mm
- Lens Dia. 100mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3544	$49.95	$44.90	$39.90

Desk Mount LED Laboratory Magnifier Lamp

This is a high quality, all metal frame construction magnifier which features 90 super bright LEDs inside the magnifier head. The magnifier itself is made of glass and is a 3 dioptre lens, with a metal handle for quick repositioning. A thumb screw positioned in between the two flexible extension arm assemblies (total extended length 990mm) allows exact positioning of the lens, and is assisted by a further thumb screw next to the lens head itself.



Mounting the magnifier is simple - screw the base onto the side of any desk or workbench (approx maximum table top thickness 45mm), and slot the magnifier into the bench mounted receptacle. The LEDs can be turned on or off with a magnifier head mounted switch, with the unit itself plugged into a mains outlet via a generous 2 metre long cord. A great tool to assist PCB assembly/inspection, jewellers, stamp/coin dealers, etc.

- 3 dioptre magnification
- Lens size: 125mm
- Light source: 90 LEDs
- Mains powered
- Total extended length 990mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3546	$119.00	$106.95	$94.95

Adhesives, Chemistry & Lubricants

ADHESIVES / CLEANERS

J-B Weld Epoxy

The world's finest cold-weld compound. It's an easy, convenient and inexpensive alternative to welding, soldering and brazing. It's a two-part epoxy resin and when mixed together forms a compound as tough as steel. Use it as adhesive, plug filler, sealant or electrical insulator. Like metal, it can be formed, drilled, ground, tapped, machined, filled, sanded and painted. It has an open time of about 30 minutes sets in 4-6 hours, and cures fully in 15-24 hours. It's waterproof, petroleum, chemical, and acid-resistant; resists shock, vibration and temperature variations. Super strong, non-toxic and cleans up with soap and water before setting. Bonds almost any combination of iron, steel, copper, aluminium, brass, bronze, pewter, porcelain, ceramic, marble, glass, PVC & ABS, concrete, fibreglass, wood, fabric - just about any porous/non-porous material.

- Mechanical properties (kPa): Tensile strength: 27300 Adhesion: 12400 / Tensile Lap Shear: 7170
- Shrinkage: 0% / Heat resistance: 260° Celsius
- Contents: 25ml

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1518	$14.95	$13.35	$11.70

Epoxy Bond 34ml

Two part epoxy resin-based adhesive recommended for use where a quick set high-strength adhesive is required. Bonds in approximately 4 minutes to give a colourless, permanent bond. Maximum strength after 1 hour. Ideal for rigid plastics, metal, glass, concrete, china & pottery. Supplied in dual tubes.

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1510	$4.95	$4.45	$3.90

UGlu Industrial Glue Strips

Make quick repairs without tools. Simply cut a strip to the size you need, then fix just like double-sided tape to create a permanent, instant bond. Bonds to just about anything - carpet, plastic, canvas, wood, metal, tile, plasterboard, cement, paper, glass, even on rough surfaces. Non-toxic, acid free, no mess. Millions of uses at home, office and workshop. Pack contains eight 75 x 30mm strips.

- Instant bond, permanent hold
- Waterproof and weatherproof
- Removable - Safe for kids to use
- Made in USA

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1522	$7.95	$6.95	$6.25

3 Second Super Glue

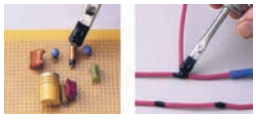
Ideal for plastics, wood, rubber, glass, metal and ceramics. It sticks in seconds and needs no clamping. Supplied in a small tube of 3 grams.

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1500	$1.90	$1.70	$1.50

Liquid Electrical Tape/Thread Locker

118ML CAN

This liquid can be used instead of insulation tape. Simply brush it on and it will insulate and seal out moisture. Once dry, it is acid & salt resistant and won't crack, peel or harden even under extreme conditions. This is a very versatile product and can be used for such diverse applications as stopping screws from vibrating loose or ropes unravelling.
Available in two colours.



Cat.	Qty 1+	Qty 4+	Qty 10+
Black NM-2832	$24.95	$22.35	$19.70
Red NM-2834	$24.95	$22.35	$19.70

28G TUBES

- Handy 28g tube.
- Available in two colours.

Cat.	Qty 1+	Qty 4+	Qty 10+
Black NM-2836	$12.95	$11.35	$10.35
Red NM-2838	$12.95	$11.35	$10.35

Wire Glue

A soldering iron in a jar. Wire Glue is a electrically conductive adhesive that enables you to make solder-free connections when you don't have a soldering iron handy, or aren't able to apply heat for some reason. Hundreds of hobby, trade and electronics uses. Lead-free, cures overnight.

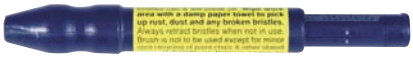
- 9ml

Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2831	$9.95	$8.75	$7.75

Corrosion Buster Pen

This pen-type product enables you to remove rust, spot corrosion and clean burnt contacts etc, without abrasion utilising the 20,000 tiny glass fibres at the tip of the pen. It has an amply sized body with finger indent to provide a comfortable & secure grip while the adjustable length allows for more aggressive cleaning when required.

- 120mm long x 14mm dia.



Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1410	$17.95	$15.95	$14.35

Heatsink Compound - 5 Gram Tube

Non electrically conductive adhesive heatsink compound 5g tube - one 5g tube will adhere up to 16 TO-3 package transistors.

Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2014	$7.95	$6.95	$6.25

Polyurethane Potting Compound

This potting compound is composed of a polyurethane base which is designed to electrically insulate and protect against dust and moisture. It features good thermal conductivity along with superior adhesion to various metals and plastics requiring encapsulation.

- Allow 15 minutes for setting time
- Cures in around 4-5 hours
- 70ml

Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2016	$9.95	$8.75	$7.75

Isopropyl Alcohol 99.8% Spray

Isopropyl alcohol is one of the most useful service aids you can have around. It has many of uses such as head cleaning, surface cleaning and prep, contact cleaning, stain removal in the laundry etc. It's also a medical-grade surface disinfectant and is ideal for cleaning your windscreen before you put your new rego label on. Easy to use pump pack spray bottle & dries quickly.

- 99.8% concentration
- 250ml bottle - Cat. NA-1066
- 300 gram Aerosol Can - Cat. NA-1067

	Cat.	Qty 1+	Qty 4+	Qty 10+
250mL	NA-1066	$8.95	$7.95	$6.95
300g	NA-1067	$9.95	$8.75	$7.75

Isopropyl Alcohol Cleaning Pads

Removes contaminants from metal, plastic & painted surfaces.

- Also ideal for cleaning computers
- Packet of 10.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pkt 10	NA-1060	$4.95	$4.45	$3.90

Conductive Carbon Grease

Lubricates and improves electrical and thermal connections between sliding surfaces, while providing protection from moisture & corrosion. Excellent for use on switches and EMI shielding applications. Industrial, trade and hobby use. 50 gram tube.

- Prevents normally closed switches from corroding in place.
- Reduces make-break arcing and pitting of switch contact surfaces
- Improves the connection between irregular or pitted contact surfaces
- Reduces EMI noise by maintaining a continuous path between conductive surfaces
- Thermally stable up to 200°C
- Density: 2.7 g/ml
- Electrical resistivity: 117 ohms/cm

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1034	$9.95	$8.75	$7.75

Inox Premium Grade Machinery Grease

General-purpose synthetic grease in a handy 30gm tube size. Ideal for bearings, ball joints, chains, sprockets, O-rings, bushes & other rubber and plastic etc.

- Food grade
- High temperature, non-melt
- Highly resistant to water, salt, chemicals and drying
- Fully synthetic
- 30 gram tube

Cat.	Qty 1+	Qty 4+	Qty 10+
NA-1032	$7.95	$6.95	$6.25

TAPE

Coax Seal Tape

This versatile material looks like ordinary PVC electrical tape but is actually a handy sealing system that fuses together to form a removable, waterproof seal once it has been applied. The tape has many uses such as waterproofing outdoor coax connections, sealing low pressure vacuum lines, or even as an alternative to heat shrink tubing when access is difficult.

- 12(W)mm x 1.5(L)m
- Used by NASA & US Military

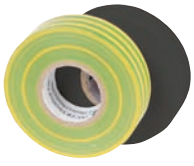
Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2828	$12.95	$11.35	$10.35

PVC Insulation Tape - 20m

High quality insulation tape suitable for wrapping electrical wires.

- Tape thickness: 0.18mm
- Roll Length: 20m
- Self-Extinguished within 2 seconds after being on fire
- Voltage breakdown: 8.0kV

NM-2852 - Yellow/Green
NM-2856 - Black



	Qty 1+	Qty 4+	Qty 10+
Both	$1.35	$1.20	$1.05

PVC Insulation Tape

NITTO DENKO

Top quality PVC tape.

- Two sizes and six colours available.
- 18mm wide.

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	5m	NM-2800	$0.78	$0.70	$0.60
Blue	20m	NM-2801	$2.25	$1.95	$1.80
Red	20m	NM-2802	$2.25	$1.95	$1.80
Black	20m	NM-2803	$2.25	$1.95	$1.80
White	20m	NM-2807	$2.25	$1.95	$1.80
Ylw/Gn	20m	NM-2804	$2.25	$1.95	$1.80

Insulation Tape - 5m 6 Pack

Contains one roll each of black, white, red, blue, yellow and green.

- 19mm wide.
- Each 5 metres in length.
- Pack will vary from picture.

Cat.	Qty 1+	Qty 4+	Qty 10+
Pkt. 6 NM-2806	$2.95	$2.60	$2.30

Heavy Duty PVC Tape - 33m

Cordon off hazardous areas or create an unmistakable marker with this heavy duty PVC tape. The vivid colouring will draw anyone's attention to the barrier. Size: 50mm

- Red/White Cat NM-2864

Cat.	Qty 1+	Qty 4+	Qty 10+
33m NM-2864	$9.95	$8.75	$7.75

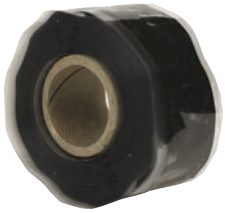
Silicone Rescue Tape - Gaffa Tape on Steroids

Rescue tape is a self-fusing tape made of the highest quality materials for a permanent air-tight and water-tight seal in emergency situations. Just wrap it around a troublesome leak and it will bond in seconds. The tighter you stretch the tape, the quicker it will bond. Brilliant!

- Resists fuels, oils, acids, solvents, salt water, road salt, UV rays
- Remains flexible to -60°C (-85° F)
- Operating temperature range: -65°C to 260°C / -85°F to 500°F
- Continuous temperature range: -60°C to 200°C / -76°F to 392°F
- Cold brittle point: -85° F / -65° C
- Tensile strength (Min.): 700 psi
- Elongation (Min.): 300%
- Tear strength (Min.): 85 ppi
- Bond strength (Min.): 2 Lbs
- Water absorption (Max.): 3% By Weight
- Dielectric strength (Min): 400 volts/mil (8,000 V/20 Mil)
- Measures 1" x 12 FT (Approx: 25.4mm x 3657.6mm)

WATCH VIDEO

RESCUE TAPE



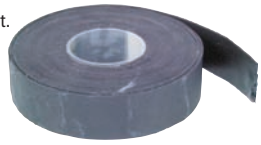
Cat.	Qty 1+
NA-2829	$19.95

TECH TIP!
You can repair a burst radiator hose with this!

Self Amalgamating Tape - 10m

This insulating tape will "cure" into a single mass (once applied) to help seal and waterproof cable, wires or even pipes. The tape has good corona resisting properties and can be used on high voltage cables. Useful where water and chemical resistance is important.

- Corona resistant.
- Chemical resistant .
- Self amalgamating.
- Length: 10 metres.

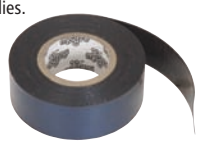


	Cat.	Qty 1+	Qty 4+	Qty 10+
10m	NM-2826	$19.95	$17.70	$15.70

Easy-Tear Magnetic Mounting Tape

Ideal for craft projects, calendars, kids' artwork or to-do lists. Simply apply tape to a supporting surface and another piece to the item, then stick it anywhere you like. The adhesive can be removed without residue from any smooth surface - glass, wood, plastic etc. No cutting is needed as the tape simply tears to length, so it's completely safe, even for littlies.

- One side magnetic, one side adhesive
- Residue-free
- Easy tear-off, no scissors
- 3m x 12mm roll



	Cat.	Qty 1+	Qty 6+	Qty 20+
	LM-1608	$5.95	$5.25	$4.75

Nashua Gaffer Tape - 40m

PREFERRED BY THE PROFESSIONALS
Genuine Nashua brand Gaffer tape. Professional quality 40 metre rolls in both black and silver. Leaves no residue behind and sticks to most clean surfaces, including carpet. 50(W)mm x 40(L)m. Ideal for

- Outdoor concerts.
- Display exhibitions.
- Theatre.
- Television studios.
- School productions.
- Car racing.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	NM-2812	$23.95	$21.35	$18.95
Silver	NM-2814	$23.95	$21.35	$18.95

Gaffer Tape - 25m

This is not your cheap plastic stuff. It is the genuine cloth-backed tape that you can split with your thumbnail. This waterproof tape is black in colour, low sheen and is the industry standard 48mm wide. Commonly called "100 mile an hour" tape, or "gaffer"tape, it was originally developed for the air conditioning industry.

- It is very adhesive and very strong.
- Ideal for taping down leads on stage.
- Repairing flexible duct work.
- Other public address setups.
- Holding things together in general. A must in every toolbox!

Cat.	Qty 1+	Qty 4+	Qty 10+
25m NM-2810	$13.50	$11.95	$10.70

Aluminium Foil Tape

To be used in any number of situations including RF shielding.

- 50m roll
- Foil thickness: 0.04mm
- Raw material: Aluminum foil, Acrylic-based adhesive
- Width 25mm or 50mm
- Application Temp.: -20 to 120ºC

	Cat.	Qty 1+	Qty 4+	Qty 10+
50mm	NM-2860	$17.95	$15.95	$14.35
25mm	NM-2862	$11.95	$10.70	$9.50

Adhesive Backed, Closed Cell Polyethylene Tape - 2m

This UV stabilised closed cell polyethylene tape is 16mm wide and 3mm thick. It is great as a seal for mounting speakers or for making water tight joins when clamping 2 surfaces together.

- The 2 metre roll is sufficient for mounting 2 x 12" woofers.

	Cat.	Qty 1+	Qty 4+	Qty 10+
2m	NM-2840	$4.95	$4.45	$3.90

Double Sided Mounting Tape

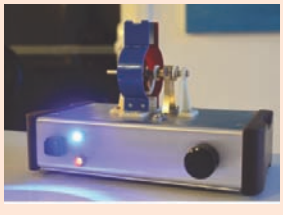
Thousands of uses, from mounting PCBs in your project to putting up your Britney Spears posters. Both are double-sided and the NM-2821 is also foam-backed.

- 12mm wide
- Two roll sizes

	Cat.	Qty 1+	Qty 4+	Qty 10+
10 metres	NM-2821	$4.95	$4.45	$3.90
25 metres	NM-2823	$3.95	$3.45	$3.15

Variable Speed DC Motor

Makers Name: Mitch Fidler
Location: New South Wales



I took a Jaycar DC Motor kit and made it into something special, a display piece.
I removed the plastic case and replaced it with a stainless steel and wood designed case.

For more details scan the QR code or go to www.jaycar.com.au/makers

Want it fast? How about next day delivery? See page 4 for details.

Aerosol Circuit Protection

AEROSOLS

Lithium Grease

Long-lasting heavy duty lubricant grease for bearings, sliding mechanisms, battery terminals, chains, sprockets or other moving parts. White in colour so it forms a kind of thick, milky sea in the lubricated area. Reduce friction, protects against corrosion.

• 400 gram

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NA-1015	$9.95	$8.75	$7.75

INOX-MX3 Lubricant, Corrosion Inhibitor

This product is similar to popular water displacement products EXCEPT that it does not contain silicone or kerosene based solvents etc. Indeed, it is so benign it can be used around food. It is also ideal for seized nuts or screws, freeing up hinges, door locks, as a cutting or tapping & other machining agent. As the product is non-conductive, it is ideal for removing moisture from car distributors, switches, potentiometers, solenoids etc. It does not dry or wash out in water. You will be delighted with this product.
Two sizes are available:
Cat. NA-1022 125g Pump Pack
(can be sent by post)
Cat. NA-1024 300g Aerosol Spray
(can't be sent by post)

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
Spray Pump	NA-1022	$7.20	$6.25	$5.75
Spray Can	NA-1024	$11.50	$10.35	$8.95

PTFE Dry Lubricant Spray

This water displacing PTFE lubricant is formulated to provide a dry, lubricating film that is perfect for use with electronic & mechanical assemblies, chains & sprockets, rollers, runners, & power tools etc. It prevents rusting on ferrous metals and helps loosen stiff or sticking parts. The spray can be used in automotive, marine and household environments.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
175g	NA-1013	$17.95	$15.95	$14.35

Freezing Spray

Non CFC ozone safe propellant. Instant freeze spray for rapidly cooling components to detect intermittent thermal faults, dry joints and overheating problems.

NEW LOWER PRICE

• Non-flammable.
• 250g size.

TECH TIP!
Please note Aerosols cannot be shipped by air

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
250g	NA-1000	$19.95	$17.70	$15.70

Contact Cleaner Lubricant

A blend of non CFC solvents and RF contact treatment oil. Ideal for cleaning and lubricating non-arcing contacts and mechanisms. Can be used for cleaning & lubricating all types of contacts.
• Safe on most plastics.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
175g	NA-1012	$11.50	$10.35	$8.95

Circuit Board Lacquer

Non CFC ozone safe propellant. Premium quality flexible coating to protect printed circuit boards from humidity and environmental attack. Special solder through lacquer so previously coated boards can be soldered.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
175g	NA-1002	$11.50	$10.35	$8.95

Electronic Circuit Board Cleaner

Non CFC ozone safe propellant. It may not be obvious, but many circuit problems occur when flux and other contaminents (even finger prints) remain on the PCB causing 'leakage' between tracks. If you work with RF, high impedance (i.e. FET Op-Amps etc), ioniser or other circuits, PCB cleanliness is a MUST. The electronic circuit board cleaner is a spray that dissolves flux residues & grime leaving the track work and board absolutely clean. We then recommend that you 'tropicalise' the board with circuit board lacquer (NA-1002)

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
175g	NA-1008	$11.50	$10.35	$8.95

Spray-On Contact Adhesive

This pressure-sensitive contact adhesive is in an aerosol can, and bonds to paper, fabric, leather, rubber, foam, vinyl, concrete, metal, in fact almost any surface! No more spills and dribbles from a tube, or sticky screwdrivers (and plastic applicators) from applying glue to a surface. Great for laying innerbond and speaker carpet in/on speaker cabinets etc.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
400g	NA-1504	$16.95	$14.95	$13.35

Butane Gas

Use it for filling up your gas soldering iron, flame torches, cigarette lighters, etc. Includes five different adaptors, which cover most different gas valves.

• Includes filling instructions.

5 adaptors supplied

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
150g	NA-1020	$5.95	$5.25	$4.75

Dust Remover

Non CFC. Non flammable gas which allows removal of dust from electronic, electrical and optical devices. It does not leave residues and is non toxic and non conductive.

NEW LOWER PRICE

• Much safer than flammable versions sold elsewhere
• 250 grams.

NOTE RE AIRDUSTER:
The Bureaucrats who control these things are trying to virtually ban this useful product. We have stock piled it but once its gone its gone. There - we told you!

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
250g	NA-1018	$19.95	$17.70	$15.70

Electronic Cleaning Solvent

Non CFC ozone safe propellant. A highly efficient fast drying solvent of high purity. For use on delicate electronic, electrical & precision mechanical assemblies (i.e. tuners, switches, plugs, sockets, relays, pots, etc).

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
175g	NA-1004	$11.50	$10.35	$8.95

Isopropyl Alcohol

Isopropyl alcohol is one of the most useful service aids you can have around. It has many uses such as head cleaning, surface cleaning and prep, contact cleaning, stain removal in the laundry etc. It's also a medical-grade surface disinfectant and is ideal for cleaning your windscreen before you put your new rego label on.

300 gram Aerosol Can

	Cat.	Qty 1+	Qty 4+	Qty 10+
300g	NA-1067	$9.95	$8.75	$7.75

A KIT REINAISSANCE?

We have noticed a general trend to once again building things with your hands. Whether it be woodwork or other crafts, there seems to be renewed interest in getting hands-on.

Why not try a kit? You will be amazed how many useful low cost gadgets you can make.

And remember your friends will be amazed that you built it yourself!

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KITS & MODULES

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EXPLANATION OF KIT ICONS

SIMPLE - These kits are straightforward to assemble, generally built in one session and will require some basic electronics knowledge and soldering skills. Most are battery or AC adaptor powered. They may not have enclosures (i.e."boxes") or front panels.

DETAILED - Similar to the above but basically bigger. They are either "short forms" of larger projects or are fully operational projects with enclosures, front panels, etc. A greater knowledge of electronics is required to understand their operation and "troubleshoot" if necessary.

COMPLEX - All big projects which by their nature are complex, require several sittings to complete and may require some mechanical assembly. A good knowledge of electronics and manual dexterity is necessary to ensure success.

BATTERY INCLUDED - Batteries are included with the kit.

240V POWERED - All mains kits have this logo. We do this because we feel it is necessary that only experienced kit constructors should attempt mains powered projects. It is generally a good idea to have a competent colleague check your work before applying power.

AUTOMOTIVE KIT - Kit is specifically designed for automotive (which could mean motorcycle, caravan or boat as well).

BUILD TIME - We understand that your time is valuable. We have therefore decided to provide you with an estimated build time for all our kits. Each kit includes a stopwatch logo that clearly indicates construction time. We know that you will find this useful.

KWIK KIT - A low cost fast assembly range of kits. Kwik kits are a fully imported range that can be assembled in just one sitting, sometimes only minutes! All printed circuit boards are screened with a component overlay. The instructions assume component knowledge & the ability to follow simple schematic diagrams.

SMD COMPONENT - Kit involves soldering a SMD (Surface Mount Device). Suitable soldering iron for SMD soldering and proper handling techniques are required.

SMD COMPONENT - PRE SOLDERED - Kit supplied with surface mount component already soldered onto the PCB

CAN'T FIND THE KIT YOU'RE LOOKING FOR? - SEE OUR KIT BACK CATALOGUE ON PAGE 79

If you can't find what you're looking for, try the Jaycar Kit Back Catalogue. To keep up with the constant flow of new kits and maintain an up to date in-store line-up of projects, older and slow moving kits are returned to our central warehouse. We have again included in this catalogue a number of the Kits that form our Back Catalogue. The range is divided up into sections and are located on page 79. In this listing is included a brief description, the reference magazine and issue date of the article, a catalogue reference number and a unit price.

Back catalogue kits are not normally available in Jaycar Stores; you can **ONLY** access information about them on our website.

On our website each of these Kits has a full description and, where available, a link to the original article for this Kit. This will allow you to read and understand how the kit operates and to maximise the functionality of these Kits.

GUARANTEE ON KITS

Most kits are successfully constructed with few problems. However, we recommend that if a kit builder does not have enough knowledge to diagnose faults, that the project should not be started unless assistance can be obtained. Unfortunately, one small faulty solder joint or wiring mistake can prevent a project from operating, which would take hours to locate and at normal service rates the service charge could well be more than the total cost of the kit. If you believe that you may have difficulty in building a kit (which is simply a complete set of separate parts made up to a list provided by the major electronics magazines) and you cannot get assistance from a friend, we suggest you return the kit to us in its original condition for a refund under our satisfaction guarantee. Unfortunately, kits cannot be replaced under our satisfaction guarantee once construction has been commenced. However, should you find any faulty parts (only), we will gladly replace them under warranty.

Audio Kits

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1W Audio Amplifier		KG-9032	68
45 Second Voice Recorder		KC-5454	69
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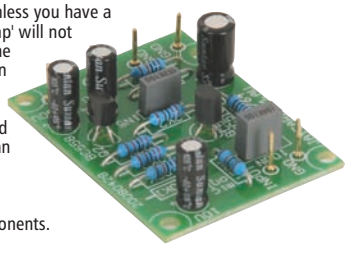
Audio/Video Kits - Video	Cat.	Page
IR Remote Extender	KC-5432	70
Programable Smartcard	KC-5361	70

PREAMPLIFIER KITS

"Pre-Champ" Versatile Preamplifier

Refer: Silicon Chip Magazine July 1994

This tiny preamp was specifically designed to be used with the 'Champ' amplifier KC-5152. Unless you have a signal of sufficient amplitude the 'Champ' will not produce its maximum power output. The 'Pre-Champ' is the answer with a gain in excess of 40dB, which is more than enough for most applications. You can vary the gain by changing a resistor and there is even provision on the PCB for an electret microphone. Use AM-4010.



- Power requirement 6-12VDC.
- Kit includes PCB and electronic components.
- Can be battery powered.
- PCB: 46 x 36mm

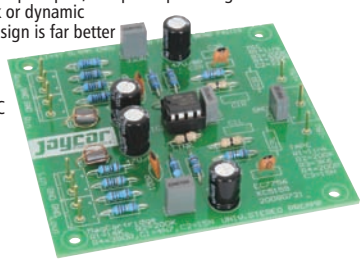
	Cat.	Qty 1+	Qty 5+
	KC-5166	$8.95	$7.95
ELECTRET MICROPHONE TO SUIT	AM-4010	$2.35 ea	
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Universal Stereo Preamplifier

Refer: Silicon Chip Magazine April 1994

Perfect for phono, tape or microphones.

Based around the low noise LM833 dual op-amp IC, this preamp is designed for use with a magnetic cartridge, cassette deck or dynamic microphone. The performance of this design is far better than most preamps in many stereo amplifiers, making it a worthy replacement if your current preamp falls short of expectation. It features RIAA/IEC equalisation, and is supplied with all components to build either the phono, tape or microphone version. Measuring only 80 x 78 x 30mm, it is ideal for incorporating into existing equipment



- PCB and components
- +/- 15VDC
- Use Cat MM-2007 if power is not available in your equipment.
- PCB: 80 x 78mm.

	Cat.	Qty 1+	Qty 5+
	KC-5159	$16.95	$14.95
TRANSFORMER TO SUIT	MM-2007	$8.95 ea	
RECOMMENDED BOX - UB1	HB-6011	$4.45 ea	

AMPLIFIER KITS

"The Champ" Audio Amplifier

Refer: Silicon Chip Magazine February 1994

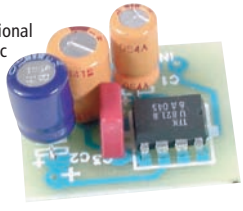
This tiny module uses the LM386 audio IC, and will deliver 0.5W into 8 ohms from a 9 volt supply making it ideal for all those basic audio projects. It features variable gain, will happily run from 4-12VDC and is smaller than a 9 volt battery, allowing it to fit into the tightest of spaces.

- PCB and all electronic components included.
- PCB: 46 x 26mm

	Cat.	Qty 1+	Qty 5+
	KC-5152	$7.95	$6.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

1 Watt Audio Amplifier Module

This tiny PCB measuring only 28 x 28mm incorporates all the electronics for a 1 Watt amplifier. 4 to 12VDC operating voltage, 50mV input sensitivity, 8 ohm output and 20 to 25000Hz output frequency. Optional connection for a 10k ohm - 100k ohm logarithmic potentiometer (not included) for adjustable volume control.



- PCB and components.
- 9VDC (use MP-3146)
- PCB: 41 x 24mm

	Cat.	Qty 1+	Qty 5+
	KG-9032	$9.95	$8.75
9VDC PLUGPACK TO SUIT	MP-3146	$17.95 ea	

50 Watt Amplifier Module

Refer: Silicon Chip Magazine March 1994

This 50 watt unit uses a single chip module and provides 50 watts RMS into 8 ohms with very low distortion and extreme quietness. PC Board size only 84 x 58mm.

- Output power: 50WRMS continuous into 8
- Power supply: +/- 37.5VDC
- Signal/Noise ratio: -114dB (A-weighted) -106dB (20-20kHz)
- Distortion: 0.002% at 40W 1kHz
- IHF power output: 60W @ 1kHz

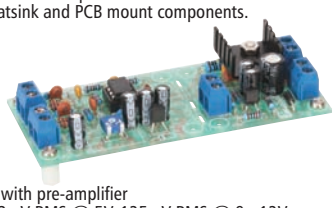
Power Requirements:
- +/-35VDC rails @ 80VA per module
- MT-2114 25 + 25V 160VA toroid x 1
- ZR-1314 Bridge rectifier x 1
- RE-6241 2,200/50V electro caps x 2
- Kit is supplied in short form version.
- PC Board and electronic components supplied. Use heatsink HH-8590.
- PCB: 84 x 58mm

	Cat.	Qty 1+	Qty 5+
	KC-5150	$29.95	$26.90

'The Champion' Audio Amplifier Kit with Pre-Amplifier

Refer: Silicon Chip Magazine January 2013

An amplifier and pre-amplifier combination for all those general-purpose audio projects. It uses the AN7511 audio IC to deliver 2W music power into 8 ohms from a 9 to 12V supply. Features low distortion, two inputs (mixed 1:1), over-temperature protection (auto-limiting), Mute and standby control. Pre-amplifier is also suitable for microphones and electric guitars, and can be separated from the amplifier for individual use. Kit supplied with silk-screened PCB, heatsink and PCB mount components.



- Operating voltage range: 4 - 13.5VDC
- Output power: up to 4W
- Music power: 3W @ 9 - 12V
- Signal-to-noise ratio: 65dB
- Frequency Response: -2.5dB @ 20Hz, -0.2dB @ 20kHz
- THD+N, 1kHz: 0.25%
- Gain: 34dB for Amplifier, up to 58dB with pre-amplifier
- Input Sensitivity for Amplifier only: 52mV RMS @ 5V, 125mV RMS @ 9 - 12V
- Input Sensitivity for Amplifier & Pre-amplifier: 2mV RMS @ 5V, 5mV RMS @ 9 - 12V
- Quiescent current: 2mA (Pre-amplifier) + 30-60mA (Amplifier)
- Standby current: 2mA (Pre-amplifier) + 1-10uA (Amplifier)
- PCB: 101x41mm

Note: Optional 10kohm potentiometer for external volume control use RP-7610

	Cat.	Qty 1+	Qty 5+
	KC-5519	$19.95	$17.70

AMPLIFIER KITS (CONTINUED)

High-Power Class-D Audio Amplifier Kit

Refer: Silicon Chip Magazine November & December 2012

This DIY high performance amplifier boasts 250WRMS output into 4 ohms, 150W into 8 ohms and can be bridged with a second kit for 450W into 8 ohms. Not only does it output high-quality sound, it is also rugged and reliable with all sorts of protection built in. Class-D amplifiers are also far more efficient and generate much less heat than linear Class A, B and AB designs.

- High efficiency
- High power
- Low distortion and noise
- Bridging option for driving 8-ohm load with two modules
- Over-current protection
- Over-temperature protection
- Under-voltage switch-off
- Over-voltage switch-off
- DC offset protection
- Fault indicator
- Amplifier running indicator
- Optional speaker protection module (use KC-5515)

Specifications	
THD+N	<0.01%
Power output	up to 150W into 8 ohm and 250W into 4 ohm, depending on power supply
Efficiency	Typically 90% at full power for 8 ohm and 83% for 4 ohm
Signal-to-noise ratio	103dB with respect to full power
Input sensitivity	2VRMS (4 ohm), 2.2VRMS (8 ohm)
Frequency response	+/- 1dB, 10Hz - 10kHz
Power requirements	+/- 40 to 60VDC, 50 to 55V nominal (use KC-5517)

Kit supplied with double sided, soldermasked and screen-printed PCB with SMD IC pre-soldered, heatsink, and electronic components.

- PCB dimensions: 117 x 167mm

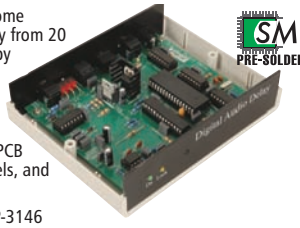
Note: The surface-mount IC is pre-soldered to avoid frustration

	Cat.	Qty 1+	Qty 5+
High-Power Class-D Amplifier	KC-5514	$89.95	$80.95
Stereo Speaker Protector	KC-5515	$29.95	$26.90
+/- 55V Power Supply	KC-5517	$29.95	$26.90

Digital Audio Delay

Refer: Silicon Chip Magazine December 2011

Corrects sound and picture synchronisation ("lip sync") between your modern TV and home theatre system. Features an adjustable delay from 20 to 1500ms in 10ms steps, and handles Dolby Digital AC3, DTS and linear PCM audio with sampling rate of up to 48kHz. Connections include digital S/PDIF and optical Toslink connections, and digital processing means there is no audio degradation. Kit includes PCB with overlay, enclosure with machined panels, and electronic components.



- 9-12VDC power supply required - use MP-3146
- Universal infra-red remote control required - use AR-1731
- PCB: 103 x 118mm

Note: We supply the surface mounted IC already pre-soldered to save you time and frustration

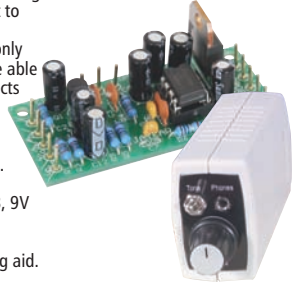
	Cat.	Qty 1+	Qty 5+
	KC-5506	$99.95	$89.95
9VDC Plugpack to suit	MP-3146	$17.95	
IR Remote Control	AR-1731	$24.95	$22.35

AUDIO KITS

The Super Ear

Refer: Electronics Australia May 1998

This kit assists people who have difficulty in hearing high audio frequencies, or for those who want to hear more than their normal unaided ear. By amplifying these high audio frequencies, not only will conversations be made clearer, you will be able to hear noises not normally heard such as insects or a watch ticking, for example. Built into a small case and powered from a 9V battery makes this kit totally portable. Use it as a hearing aid or for a fun & educational purpose.



- Kit supplied with case, machined panel, PCB, 9V battery, and all electronic components.
- Headphones required.
- Note: Not a replacement for a proper hearing aid.
- PCB: 56 x 26mm

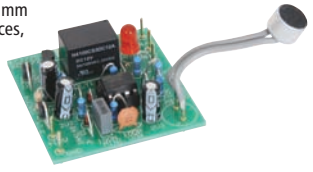
	Cat.	Qty 1+	Qty 5+
	KA-1809	$27.95	$24.95

"Minivox" Voice Operated Relay

Refer: Silicon Chip Magazine September 1994

Voice operated relays are often used in 'hands free' communication such as mobile radios, amateur transceivers as well as some PA applications. The idea, of course is that instead of pushing a button on the microphone to talk, the sound of the voice activates it instead.

This tiny kit measures approx 50 x 50 x 15mm and is designed to fit into the tightest spaces, has almost no turn-on delay, and has 3 second release time.



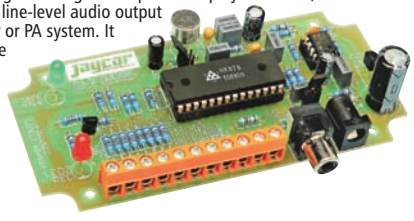
- 12VDC @ 35mA required.
- Kit is supplied with PCB electret mic, and all specified components.
- PCB: 47 x 44mm

	Cat.	Qty 1+	Qty 5+
	KC-5172	$15.95	$14.35
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

45 Second Voice Recorder Module

Refer: Silicon Chip Magazine December 2007

Here's an improved version of the very popular voice recorder design published by Silicon Chip Magazine in May 2005. This improved version can now be set up easily to record two, four or eight different messages for random-access playback or a single message for 'tape mode' playback. Also, it now provides cleaner and glitch-free line-level audio output suitable for feeding an amplifier or PA system. It can be powered from any source of 9 - 12VDC. Supplied with silk screened and solder masked PCB and all electronic components.



- PCB: 120 x 58mm

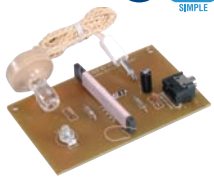
	Cat.	Qty 1+	Qty 5+
	KC-5454	$34.95	$31.45
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

AV KITS - RADIO & FM KITS

Crystal Radio

A radio without batteries!

Enjoy AM broadcasting without using battery or other power sources. Ideal for entry-level students or hobbyist with little electronics experience.



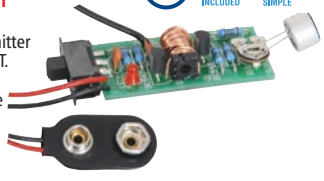
- Includes circuit explanation.
- Kit supplied with screen printed PCB (81x53mm), crystal, pre-wound coil, earphone and all components.
- PCB: 80 x 50mm.

	Cat.	Qty 1+	Qty 5+
	KV-3540	$12.95	$11.35

Miniature FM Transmitter

Refer: Electronics Today International December 1985

This unit is a two transistor two stage transmitter that has the benefits of being VERY COMPACT. The kit contains PCB, 9V battery and all components, and makes an ideal inexpensive beginners kit.



- PCB: 45 x 23mm

	Cat.	Qty 1+	Qty 5+
	KE-4711	$12.95	$11.35
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Kit Constructors Manual

A must for amateur constructors. Contains much useful information for the more experienced. Huge amounts of information on construction and identification of parts.

- 8 pages.

	Cat.	Qty 1+
	BI-8200	$2.00

Audio & Video Kits

AUDIO EFFECTS KITS

Theremin Synthesiser MkII

Refer: Silicon Chip Magazine March 2009

The ever-popular Theremin is better than ever. It's easier to set up with extra test points for volume adjustment and power supply measurement and it now runs on AC to avoid the interference switchmode plugpacks can cause. It's also easier to build with PCB-mounted switches and pots to reduce wiring to just the hand plate, speaker and antenna and has the addition of a skew control to vary the audio tone from distorted to clean.

- Complete kit contains PCB with overlay, pre-machined case and all specified components.
- 12VAC 250mA power required.
- PCB size: 85 x 145mm

CREATE YOUR OWN WEIRD SCIENCE FICTION SOUNDS WITH THIS MODERN IMPLEMENTATION OF AN OLD IDEA.

As used in the Beach Boys classic hit "Good Vibrations"

Create your own weird science fiction sounds with this modern implementation of an old idea. The Theremin synthesiser produces those familiar science fiction movie sound effects when you move your hand between a metal plate and antenna. The unit has an amazing range from piecing shrieks to low end growling sounds. The Theremin, named after its inventor Leon Theremin, is a musical instrument that uses electronic circuits to produce audible sounds, having the unusual aspect of being controlled by the player's hand movements near the two "antennas", without touching the instrument.

HOW DOES IT WORK?

As the player moves his hands, the value of capacitance between his hand and the theremin's antennas vary, changing current in the circuit, which in turn controls the sound signal that goes to the amplifier and speaker. One hand is use to control the Theremin's pitch, and the other is used to control the volume.

	Cat.	Qty 1+	Qty 5+
	KC-5475	$74.95	$67.50
12VAC PLUGPACK TO SUIT	MP-3020	$18.95	

Fog Horn

This kit generates a deep sounding noise similar to fog horns on ships. Use as a unique warning siren or to improve a child's toy.

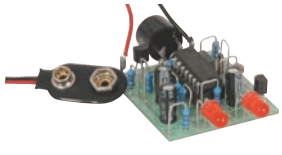
- Output power up to 5 watts depending on the input voltage used.
- 4.5-12VDC
- Requires an 8ohm speaker - use our AS-3000
- PCB: 25 x 25mm.

	Cat.	Qty 1+	Qty 5+
	KG-9092	$12.95	$11.35
57mm SPEAKER TO SUIT	AS-3000	$3.50 ea	
RECOMMENDED BOX UB3	HB-6013	$3.95 ea	

Clifford The Cricket

Refer: Silicon Chip Magazine Dec 1994

Clifford hides in the dark and chirps annoyingly until a light is turned on - just like a real cricket. Clifford is created on a small PCB and has little LED insect eyes that flash as it sings. Just like a real cricket, it waits a few seconds after darkness until it begins chirping, and stops instantly when a light comes back on.



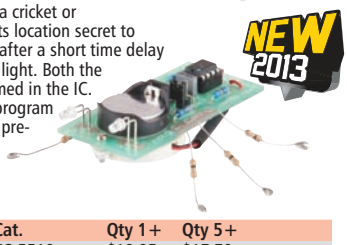
- PCB, piezo buzzer, LDR plus all electronic components supplied.
- PCB: 41 x 36mm

	Cat.	Qty 1+	Qty 5+
	KC-5178	$16.95	$14.95

Crazy Cricket and Freaky Frog Kit

Refer: Silicon Chip Magazine June 2012

A fun first project for a budding electronics enthusiast. Designed to imitate the chirping noise of a cricket or gentle croaking of a frog, while keeping its location secret to annoy other family members. It activates after a short time delay in darkness and stops when disturbed by light. Both the cricket or frog modes are in pre-programmed in the IC. Each time you turn it on, the alternating program runs. Kit supplied with silk screened PCB, pre-programmed PIC IC, CR2032 button cell battery and electronic components.



- PCB dimensions: 30 x 65mm

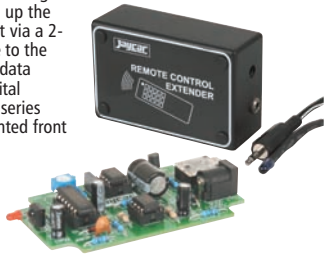
	Cat.	Qty 1+	Qty 5+
	KC-5510	$19.95	$17.70

AV KITS - VIDEO

IR Remote Extender MKII

Refer: Silicon Chip Magazine October 2006

Operate your DVD player or digital decoder using its remote control from another room. It picks up the signal from the remote control and sends it via a 2-wire cable to an infrared LED located close to the device. This improved model features fast data transfer, capable of transmitting Foxtel digital remote control signals using the Pace 400 series decoder. Kit supplied with case, screen printed front panel, PCB with overlay and all electronic components.



- Required: 9VDC and 2-wire cable for extending the IR-Tx lead (use WB-1702).
- PCB: 79 x 47mm

	Cat.	Qty 1+	Qty 5+
	KC-5432	$26.95	$23.95
9VDC PLUGPACK TO SUIT	MP-3146	$17.95 ea	
2-WIRE CABLE TO SUIT	WB-1702	$0.50 per metre	

Smart Card Programmer for Gold, Silver and Emerald Wafer Cards

Refer: Silicon Chip Magazine July 2003

This full function programmer allows you to program both the microcontroller and EEPROM in the popular Gold, Silver and Emerald wafer cards. It hooks up to the serial port of your PC and can be operated as a free-standing unit or installed in a PC drive bay. Cards used need to conform to ISO-7816 standards, which includes ones sold by Jaycar.

- Instructions outline requirements for software that are available on the Internet.
- PCB, wafer card socket and electronic components.
- 9-12VDC (battery or use MP-3146)
- PCB: 141 x 101mm

Jaycar Electronics and Silicon Chip Magazine will not accept responsibility for the operation of this device, its related software, or its potential to be used for unlawful purposes.

RELATED PRODUCT...
For suitable Wafer Card see page 212

	Cat.	Qty 1+	Qty 5+
	KC-5361	$54.95	$49.45
REGULATED PLUGPACK TO SUIT	MP-3146	$17.95 ea	

DON'T JUST SIT THERE, BUILD SOMETHING!

LED Headband Magnifier

A handy tool for kit construction. This magnifying headset leaves both hands free and can be worn over prescription or safety glasses. It also has a built-in LED light that can be rotated up, down or side to side to illuminate your work. There are three lenses that can be used in combinations to give 1.5x, 3x, 8.5x or 10x magnification. The head strap is fully adjustable and locks into position and the lens assembly can be swivelled up out of the way when not in use. A multitude of uses including lapidary, jewellery, model-making, electronics and camera repair.

- Requires 2 x AAA batteries

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3511	$29.95	$26.90	$23.70

AUTOMOTIVE KITS INDEX

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Car Battery Monitor

EA 30 mins AUTOMOTIVE KIT SIMPLE

Refer: Electronics Australia May 1987

Don't get caught with a flat battery! This simple electronic voltmeter lets you monitor the condition of your car's battery so you can act before getting stranded. 10 round 5mm LEDs tell you your battery's condition.

- Kit includes PC board and all components.
- PCB: 62 x 39mm

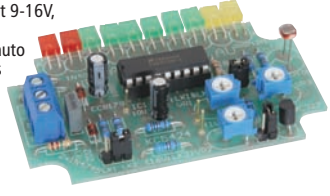
	Cat.	Qty 1+	Qty 5+
	KA-1683	$17.95	$15.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Voltage Monitor

SILICON CHIP 60 mins AUTOMOTIVE KIT DETAILED

Refer: Silicon Chip Magazine May 2006

This versatile kit will allow you to monitor the battery voltage , the airflow meter or oxygen sensor in your car. The kit features 10 LEDs that illuminate in response to the measured voltage, preset 9-16V, 0.-5V or 0-1V ranges, complete with a fast response time, high input impedance and auto dimming for night time driving. Kit includes PCB with overlay, LEDs and all electronic components.



- 12VDC
- Recommended box: UB5 use HB-6015
- PCB: 74 x 47mm

	Cat.	Qty 1+	Qty 5+
	KC-5424	$22.95	$20.35
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

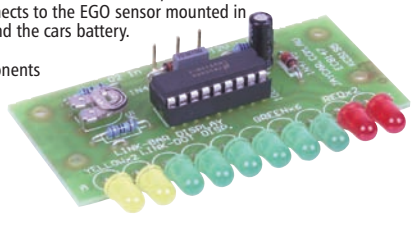
Mixture Display For Fuel Injected Cars

SILICON CHIP 30 mins AUTOMOTIVE KIT SIMPLE

Refer: Silicon Chip Magazine November 1995

TECH TIP! THOUSANDS SOLD!

This very simple kit will allow you to monitor the fuel mixtures being run by your car. This type of sensor is also known as an E.G.O. (exhaust, gas, oxygen) monitor. You can use it as a tuning tool, to help in vehicle modification or simply to see the behaviour of the engine control module. Indication is via 10 LEDs to show mixtures rich, lean and normal. The circuit connects to the EGO sensor mounted in the exhaust manifold and the cars battery.



- PCB, LEDs and components supplied.
- Thousands sold!
- PCB: 74 x 36mm

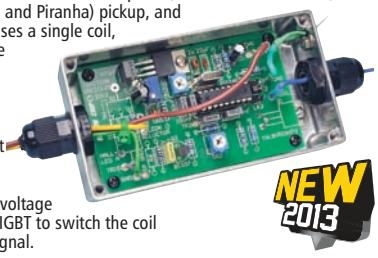
	Cat.	Qty 1+	Qty 5+
	KC-5195	$16.95	$14.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

High Energy Ignition Kit for Cars

SILICON CHIP 3 hours DETAILED

Refer: Silicon Chip Magazine November & December 2012

Use this kit to replace a failed ignition module or to upgrade a mechanical ignition system when restoring a vehicle. Suits vehicles with points, hall effect/lumenition, reluctor and optical sensors (Crane and Piranha) pickup, and virtually any ignition system that uses a single coil, even those controlled by an engine management computer.



- Trigger invert option
- Adjustable dwell time
- Option for output or follow input
- Tachometer output
- Adjustable debounce period
- Dwell compensation for battery voltage
- Simplified design using ignition IGBT to switch the coil
- Coil switch-off with no trigger signal.

A spark self-test feature allows the dwell to be easily adjusted to suit the coil in use. Kit supplied with silk-screened PCB, diecast enclosure (111 x 60 x 30mm), pre-programmed PIC and PCB mount components for all four trigger/pickup options.

Requires: Miscellaneous mounting hardware specific to the individual installation.

Note: Hall-effect and optical pick-ups not included.

	Cat.	Qty 1+	Qty 5+
	KC-5513	$49.95	$44.90

Courtesy Interior Light Delay

SILICON CHIP 45 mins AUTOMOTIVE KIT DETAILED

Refer: Silicon Chip Magazine June 2004.

Many modern cars feature a time delay on the interior light. It still allows you time to buckle up and get organised before the light dims and finally goes out. This kit provides that feature for cars which don't already provide it. It has a soft fade out after a set time has elapsed, and features much simpler universal wiring than previous models we have had.

- Kit supplied with PCB with overlay, and all electronic components.
- Suitable for circuits switching ground or +12V or 24VDC (car & truck with negative chassis.)
- PCB: 78 x 46mm

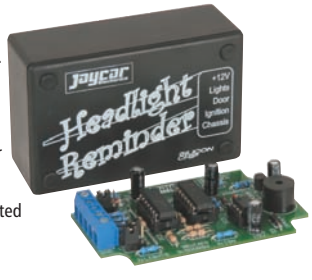
	Cat.	Qty 1+	Qty 5+
	KC-5392	$19.95	$17.70
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Headlight Reminder For Cars

SILICON CHIP 60 mins AUTOMOTIVE KIT SIMPLE

Refer: Silicon Chip Magazine August 2001

Nothing is more frustrating than getting into your car early in the morning, only to discover that you had left your headlights on the night before, running your car's battery flat. Features include a modulated alarm, ignition and lights monitoring, optional door switch detection, time-out alarm and a short delay before the alarm sounds. Build and install this hassle-saving kit and enjoy a feature in your car that many luxury vehicle owners have long taken for granted. Kit includes quality solder masked PCB with overlay, case with screen printed lid and all electronic components. 12VDC.



- PCB: 78 x 49 mm

	Cat.	Qty 1+	Qty 5+
	KC-5317	$27.95	$24.95

Ultrasonic Proximity Detector

KwiK Kit 30 mins AUTOMOTIVE KIT SIMPLE

Attention motorists!

Commercial products that carry out a similar task are, in some cases, worth over $100. Choose the minimum distance you wish to maintain between your vehicle and objects nearby. Useful at a distance of 10 to 80cm, the kit can also be used to sense animals straying into a particular area or even specific object security protection such as TVs and VCRs. An LED illuminates once an object strays into the detector's sensor range.

- Kit includes Kwik Kit PCB, one pair of ultrasonic sensors plus electronic components. This kit is designed to be used in a garage, not under the bumper bar.
- Sensors not waterproof.
- Suitable waterproof transducers/sensors Cat AU-5550.
- PCB: 55 x 43mm.

	Cat.	Qty 1+	Qty 5+
	KG-9158	$29.95	$26.90
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

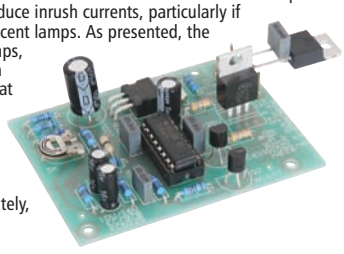
Automotive Kits

AUTOMOTIVE KITS (CONTINUED)

10A 12VDC Motor Speed Controller

Refer: Silicon Chip Magazine June, 1997

Use this kit for controlling 12V DC motors in cars such as fuel injection pumps, water/air intercoolers and water injection on performance cars. You can also use it for headlight dimming and for running 12V DC motors in 24V vehicles. The circuit incorporates a soft start feature, which is used to reduce inrush currents, particularly if the kit is to control 12V incandescent lamps. As presented, the kit will control loads up to 10 amps, although the addition of an extra MOSFET transistor will double that capacity to an amazing 20 amps.



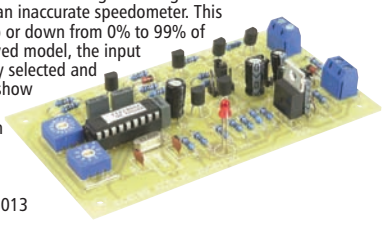
- Kit includes PCB plus all electronic components to build the 10A version.
- Extra MOSFET available separately, ZT2450.
- PCB: 69 x 51mm

	Cat.	Qty 1+	Qty 5+
	KC-5225	$24.95	$22.35
OPTIONAL MOSFET TO SUIT	ZT-2450	$8.95 ea	
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Speedo Corrector MkII

Refer: Silicon Chip Magazine December 2006

When you modify your gearbox, diff ratio or change to a large circumference tyre, it may result in an inaccurate speedometer. This kit alters the speedometer signal up or down from 0% to 99% of the original signal. With this improved model, the input setup selection can be automatically selected and it also features an LED indicator to show when the input signal is being received. Kit supplied with PCB with overlay and all electronic components.



- Recommended box UB5 use HB-6013
- PCB: 105 x 61mm

	Cat.	Qty 1+	Qty 5+
	KC-5435	$54.95	$49.45
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

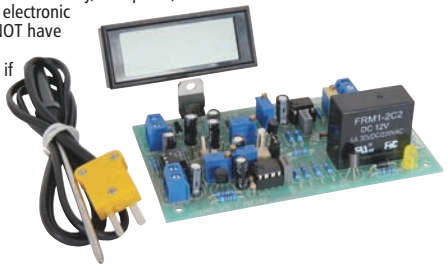
High Range Adjustable Temperature Switch with LCD

Refer: Performance Electronics for Cars - Silicon Chip Magazine Publications

- Measures to an incredible 1200 degrees Celsius
- Switch devices on or off at a set temperature
- Digital readout

Use it to:
- Display any car temperature: oil, exhaust gas, coolant, intake air, brakes, etc
- Trigger alarms, warning lights, fans, etc, at a selectable temperature.

Heat can be a major problem with any car, especially modified and performance cars. the more power, the more heat, so you need to ensure you have adequate cooling systems in place. This temperature switch can be set anywhere up to 1200 degrees Celsius, so it is extremely versatile. The relay can be used to trigger an extra thermo fan on an intercooler, mount a sensor near your turbo manifold and trigger water spray cooling, or a simple buzzer or light to warn you of a high temperature. The LCD, which can easily be dash mounted, displays the temperature all the time. kit supplied with a quality solder masked PCB with overlay, LCD panel, temperature probe and all electronic components. Probe does NOT have isolated case. Kit requires probe with insulated case, if mounted to common ground.



- PCB: 105 x 60mm

	Cat.	Qty 1+	Qty 5+
	KC-5376	$72.95	$65.50
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Universal Voltage Switch

Refer: High Performance Electronic Projects for Cars - Silicon Chip Magazine Publications.

This is a universal module which can be adapted to suit a range of different applications. It will trip a relay when a preset voltage is reached. It can be configured to trip with a rising or falling voltage, so it is suitable for a wide variety of voltage outputting devices eg., throttle position sensor, air flow sensor, EGO sensor. It also features adjustable hysteresis (the difference between trigger on/off voltage), making it extremely versatile. You could use it to trigger an extra fuel pump under high boost, anti-lag wastegate shutoff, and much more. Kit supplied with PCB, and all electronic components.

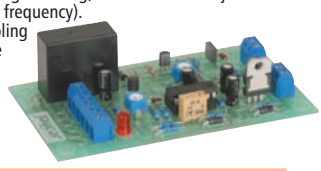
- PCB: 105 x 60mm.

	Cat.	Qty 1+	Qty 5+
	KC-5377	$32.95	$29.45
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Frequency Switch

Refer: High Performance Electronic Projects for Cars - Silicon Chip Magazine Publications.

This is a great module which can be adapted to suit a range of different applications. It uses a standard tacho, road speed, or many other pulse outputs to switch a relay. The switch frequency can be set to trip when it is rising or falling, and it features adjustable hysteresis (the difference between trigger on/off frequency). You could configure it to trigger water spray cooling on deceleration, shift light activation, adjustable aerodynamics based on speed, intake manifold switching and much more. Kit supplied with PCB, and all electronic components.



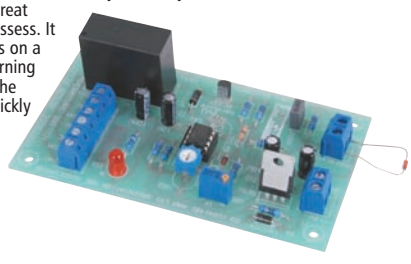
- PCB: 105 x 60mm

	Cat.	Qty 1+	Qty 5+
	KC-5378	$37.95	$33.95
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Economy Adjustable Temperature Switch

Ref: High Performance Electronic Projects for Cars - Silicon Chip Publications.

If you don't need the display, or the huge operational range of the High Range Adjustable Temperature Switch with LCD (KC-5376), then this unit is a great alternative. It has an adjustable switching temperature up to 245°C, and it can be configured to trigger with rising or falling temperature. It has adjustable hysteresis (the difference between on/off temp), which is a great feature many other units do not possess. It can be used to operate cooling fans on a radiator or amplifier, over-temp warning lights or alarms, and much more. The small temperature sensor reacts quickly to temp changes. Kit supplied with PCB, NTC Thermistor, and all electronic components.



PCB: 105 x 60mm

	Cat.	Qty 1+	Qty 5+
	KC-5381	$32.95	$29.45
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Capacitor Discharge Ignition for Motor Bikes

Refer: Silicon Chip Magazine May 2008

Many small petrol engines fitted to modern motor bikes use a capacitor discharge ignition (CDI) to improve performance and enhance reliability. The only downside of this is that if the CDI ignition module fails, a replacement can be very expensive. This kit will replace many failed factory units and is designed for engines with separate generator & trigger coils and which generate a positive high voltage to charge the capacitor before firing. Most CDI ignitions operate this way, but there are variations. Luckily, this CDI module uses cheap and readily available parts and is worth a try before shelling out lots of hard-earned cash for a genuine replacement module. Supplied with solder masked PCB and overlay, case and components. Some mounting hardware required.

- PCB: 45 x 64mm

	Cat.	Qty 1+	Qty 5+
	KC-5466	$21.95	$19.70

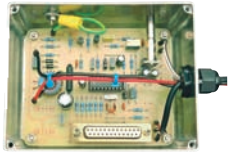
Programmable High Energy Ignition

SILICON CHIP · 4+ hours · AUTOMOTIVE KIT · COMPLEX

Refer: Silicon Chip Magazine March/April 2007

This is Silicon Chip's most advanced and versatile ignition system yet and can be used on both two & four stroke engines. The system can be used simply to intercept and modify the factory ignition timing or turned into a stand alone ignition system with remapped timing, electronic coil control and anti-knock sensing. The unit will trigger from a range of sources including points, Hall effect sensors, optical sensors, or the 5 volt signal from the car's ECU. Timing can be mapped against engine load and RPM and adjusted in step as small as 0.5°.

- Timing retard & advance over a wide range
- Suitable for single coil systems
- Dwell adjustment
- Single or dual mapping ranges
- Two de-bounce settings
- Max & min RPM adjustment
- Suits 1 to 12 cylinder four stroke engines and 1 to 6 cylinder two stroke engines
- Optional knock sensing available
- 12VDC
- Kit includes PCB with overlay, programmed micro, all electronic components and die cast box.
- PCB: 102 x 81mm



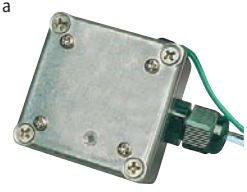
	Cat.	Qty 1+	Qty 5+
	KC-5442	$69.95	$62.95

Ignition Coil Driver

SILICON CHIP · 2 hours · AUTOMOTIVE KIT · DETAILED

Refer: Silicon Chip Magazine March, April 2007

Add this ignition coil driver to the KC-5442 Programmable Ignition System and you have a complete stand-alone ignition system that will trigger from a range of sources including points, Hall effect sensors, optical sensors, or the 5 volt signal from the car's ECU. The kit can be mounted close to the coil to minimise energy loss and the ignition system can be fitted inside the car. Kit includes PCB with overlay and all specified components.



- PCB: 40 x 39mm

	Cat.	Qty 1+	Qty 5+
	KC-5443	$46.95	$42.45

AUTOMOTIVE - MARINE KITS INDEX

Automotive - Marine	Cat.	Page
Ultrasonic Antifouling for Boats	KC-5498	73

Hand Controller for Digital Adjusters

SILICON CHIP · 90 mins · AUTOMOTIVE KIT · DETAILED

Refer: Performance Electronics for Cars - Silicon Chip Magazine Publications

Used to program the Programmable High Energy Ignition, Digital Pulse Adjuster, and Independent Electronic Boost Controller Circuits

This hand controller is used for the mapping/programming of both Digital Adjuster kits. It features a two line LCD, and easy to use pushbuttons. It can program the adjusters then removed, or left permanently connected to display the adjuster's operation. It is designed as an interface and display, and is not required for general adjuster functions after they have been programmed. If you have built and installed multiple adjuster kits, you will only need one controller to program, unless you want permanent displays for each adjuster function.

- PCB, silk screened and machined case, LCD, and all electronic components.
- Must have all D25 pins connected.
- PCB: 65 x 115mm.

	Cat.	Qty 1+	Qty 5+	
	KC-5386	$67.95	$60.95	
	Cat.	Qty 1+	Qty 4+	Qty 10+
D25 MALE TO MALE CABLE - 1.8M	WC-7502	$13.95	$12.35	$10.95

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Silicon Chip is Australia's world-class magazine for the electronics enthusiast. As well as a great range of fun DIY kits, SILICON CHIP has interesting features articles and popular columns such as "Serviceman's Log" and "Circuit Notebook" etc.

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BOOK AVAILABLE

SILICON CHIP

	Cat.	Qty 1+
	BE-5025	$9.30

Ultrasonic Anti-fouling for Boats

SILICON CHIP · 4+ hours · DANGEROUS 240V · COMPLEX

Refer: Silicon Chip Magazine September/October 2010

Many of you know that you can buy imported marine growth electronic antifouling systems that cost up to $8000. Jaycar, with Silicon Chip have developed a similar system based on this technology and information in the public domain. This project uses the same ultrasonic waveforms and virtually identical ultrasonic transducers mounted in sturdy polyurethane housings. By building yourself you save a fortune! Standard unit consists of control electronic kit and case, pre-built ultrasonic transducer, potting and gluing components and housings. The single transducer design of this kit is suitable for boats up to 10m (32ft); boats longer than about 14m will need two transducers and drivers. Basically all parts supplied in the project kit including wiring. (Price includes epoxies).

- 12VDC
- Suitable for power or sail
- Works with aluminium and fibreglass boats (not suitable for timber, ferro cement or fibreglass foam sandwich construction)
- Could be powered by a solar panel/wind generator
- Output frequency range: 19.08 - 41.66kHz in 14 bands with 200ns steps.
- Frequency sweep in each band: 12 frequencies ranging from 80Hz spacings at 20kHz to 344Hz steps at 40kHz
- Signal burst period: 600ms at 20kHz, 300ms at 40kHz (12000 cycles/ burst)
- Output drive. 250VAC
- Supply Voltage. 11.5V to 16V maximum
- Current drain: 220mA average at 12V driving a 3nF load
- PCB: 78 x 104mm

TECH TIP!
Now includes pre-built transducer

RELATED PRODUCT...
See our new assembled Ultrasonic Antifouling Devices on page 250

	Cat.	Qty 1+	Qty 5+
	KC-5498	$249.00	$225.00

Computer & Household Kits

COMPUTER KITS INDEX

Computer	Cat.	Page
Experimenter USB Interface	KV-3600	74
miniMaximite Controller	KC-5505	74
Pic Programmer	XC-4402	74
Progrmamable Smartcard	KC-5361	70
8 Channel USB Relay Card with Smartphone App **NEW**	KV-3602	74

miniMaximite Controller

Refer: Silicon Chip Magazine November 2011

A versatile and intelligent controller to interface with your creations, such as home automation. Features 20 configurable digital/analog inputs or output ports, 128K RAM and 256KB flash memory to hold your program and data. Design and test in MMBasic over a USB link from your PC, then disconnect the PC and the programs continue to operate. Alternatively, hard wire a PC monitor, keyboard, SD card reader and amplified speaker to work independent of a PC. Requires 2.3 - 3.6V DC (2 x AA or use plugpack MP-3310). Kit supplied with PCB, pre-programmed and pre-soldered micro, and electronic components.

- PCB: 78 x 38mm

Note: We supply all of the surface mounted components already pre-soldered to save you time and frustration.

	Cat.	Qty 1+	Qty 5+
	KC-5505	$49.95	$44.90

USB Experimenter's Interface

Interface your computer to the real world with this sophisticated USB Kit. There are five digital inputs to monitor the state of external switches or controls and two variable gain analogue inputs that can be connected to sensors and used for measuring temperature, humidity, voltage, current, & other variable parameters. Eight digital and two analogue outputs are available for controlling external equipment. The kit is supplied with all components, silk screened PCB and assembly manual.

- 5 Digital inputs
- 2 Analogue inputs with variable gain
- Analogue input range 0 to 5VDC
- 8 Open collector digital counters
- 2 Analogue outputs PWM or 0 to 5VDC
- On-board test buttons for inputs & LED
- USB powered
- Win98SE or above (Not NT)
- PCB: 145 x 87mm.

Note: Software now available online, not on CD.

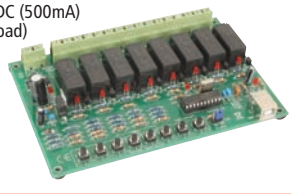
	Cat.	Qty 1+	Qty 5+
	KV-3600	$69.95	$62.95
RECOMMENDED BOX - UB2	HB-6012	$6.95 ea	

8 Channel USB Relay Card Kit with Smartphone App

Interface with the real world and control devices all from a computer or Smartphone. This kit features 8 high power (16A) relays for connecting up devices to control. You could wire in lights, appliances, security equipment, garage doors, and more. The board features 8 pushbuttons for relay testing as well as PC software and an iPhone® app to control the relays. When a relay is switched on, a corresponding LED will light up on the board. The iPhone® app has 8 toggle (on/off) buttons for each relay, you can even name the relays.

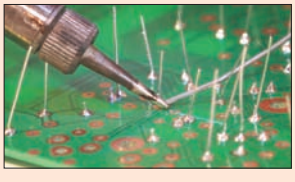
Since this device communicates over a virtual serial port (COM) you can control it with freely available com port control software. You can for example send HEX data to switch all the relays on/off, switch certain ones on, etc. For the programmers out there you could even write your own software in vb.net using the Serial Port class. Excellent for the tinkerers.

- Power supply: 9VAC-10VAC or 12VDC-14VDC (500mA)
- 8 x high power relays: 16A each (resistive load)
- Time setting up to 18 hours
- Two way PC communication
- Compatible with Windows XP, 2000, Vista, 7, 8
- Dimensions: 160(L) x 107(W) x 30(H)mm



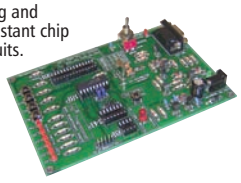
	Cat.	Qty 1+	Qty 5+
	KV-3602	$89.95	$80.95

DON'T JUST SIT THERE, BUILD SOMETHING!



Velleman PIC Programmer / Checker Module

Supporting 8 pin, 14 pin, 18 pin, and 24 pin PIC microcontrollers, this board is quite versatile. It operates as a regular programmer, but also has on-board test functions using LEDs and pushbuttons. This makes experimenting and debugging faster and easier, reducing the need for constant chip swapping between programming and operational circuits. It includes a copy of PIC programming software, and can run on Win 95 / 98 / ME / NT / 2000 and XP. It operates through the serial interface for simplicity, and supports a huge array of microcontrollers. See website for list of compatible PIC chips.



- PCB: 145 x 100mm.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4402	$139.00	$124.95	$110.95

Full Function Smart Card Reader / Programmer

Refer: Silicon Chip Magazine July 2003

This full function programmer allows you to program both the microcontroller and EEPROM in the popular gold, silver and emerald wafer cards. It hooks up to the serial port of your PC and can be operated as a free-standing unit or installed in a PC drive bay. Cards used need to conform to ISO-7816 standards, which includes ones sold by Jaycar.

Powered by 9V via a 9 - 12VDC plugpack (use MP-3146) or 9V battery.

- Instructions outline software requirements that are freely available on the Internet.
- Kit supplied with PCB, wafer card socket and all electronic components.
- PCB: 141 x 101mm

Jaycar Electronics and Silicon Chip Magazine will not accept responsibility for the operation of this device, its related software, or its potential to be used for unlawful purposes.

	Cat.	Qty 1+	Qty 5+
	KC-5361	$54.95	$49.45
REGULATED PLUGPACK TO SUIT	MP-3146	$17.95 ea	

HOUSEHOLD PROJECTS INDEX

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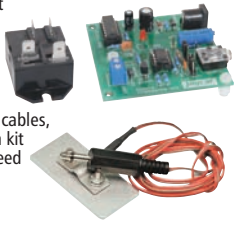
Temperature Switch	KG-9140	74
Tempmaster Fridge Thermostat Mk II	KC-5476	74

Tempmaster Fridge Controller Mk II

Refer: Silicon Chip Magazine February 2009

Want to convert an old chest freezer into an energy-efficient fridge or beer keg fridge? Or convert a spare standard fridge into a wine cooler? These are just two of the jobs this low-cost and easy-to-build electronic thermostat kit will do. It can also be used to control 12V fridges or freezers, as well as heaters in hatcheries and fish tanks. It controls the fridge/freezer or heater directly via their power cables, so there's no need to modify the internal wiring. Short-form kit contains PCB, sensor and all specified components. You'll need to add your own 240V GPO, switched IEC socket and case.



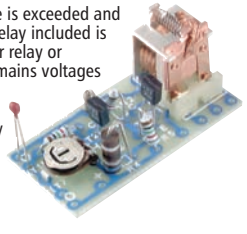
- PCB: 68 x 67mm

	Cat.	Qty 1+	Qty 5+
	KC-5476	$32.95	$29.45

Temperature Switch

Ideal for turning fans or heaters on at certain temperatures.

This kit operates a relay when a preset temperature is exceeded and drops-out the relay when temperature drops. The relay included is capable of switching small currents only, so a larger relay or switching device should be employed if switching mains voltages or heavy currents. Ideal as a thermostat, ice alarm, hydroponics applications, etc. A small trimpot is used to adjust the cutout temperatures for the relay in the range of approx -30 to +150° celcius.



- PCB NTC thermocouple and components
- 12VDC, 100mA
- PCB: 56 x 28mm

	Cat.	Qty 1+	Qty 5+
	KG-9140	$24.95	$22.35
12VDC PLUGPACK TO SUIT	MP-3147	$17.95 ea	
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

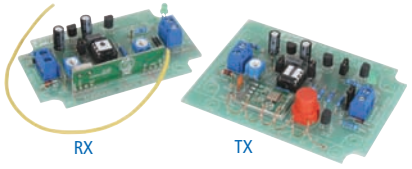
433MHz Remote Switch

SILICON CHIP | 2 hours | DETAILED

Refer: Silicon Chip Magazine January 2009

Suitable for remote control of practically anything up to a range of 200m, for example, as a replacement for a dead garage door opener. The receiver has momentary or toggle output and the momentary period can be adjusted. The receiver can also be used to drive a 12 volt relay - you'll need to add a 12 volt source. Up to five receivers can be used in the same vicinity and spare transmitter kits are available: KC-5474. A versatile kit with endless applications. Short-form kit contains two PCBs and all specified components.

- 433MHz
- Requires case and 9 -12VDC
- Extra transmitter kit: KC-5474
- PCBs: Tx: 85 x 63mm Rx: 79 x 48mm



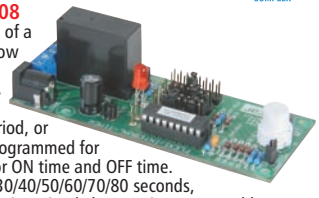
	Cat.	Qty 1+	Qty 5+
Remote Switch Kit	KC-5473	$44.95	$40.45

Low Cost Programmable Interval Timer

SILICON CHIP | 90 mins | COMPLEX

Refer: Silicon Chip Magazine June 2008

Here's a new and completely updated version of a very popular project: an easily programmed low cost electronic timer. It operates from 12VDC, with low current drain: <50mA when relay is on, <5mA when relay is off. It is link programmed for either a single ON timing period, or continuous ON/OFF cycling and can be link programmed for any of 48 different time periods, separately for ON time and OFF time. Selectable periods are 1/2/3/4/5/6/7/8/10/20/30/40/50/60/70/80 seconds, minutes and hours. It may be restarted at any time simply by pressing reset pushbutton. Kit includes PCB, pre-programmed PIC and all specified electronic components.



- PCB: 102 x 42mm

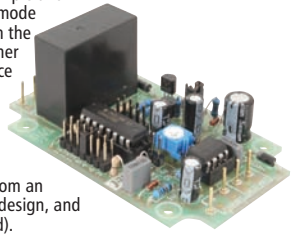
	Cat.	Qty 1+	Qty 5+
	KC-5464	$34.95	$31.45

The 'Flexitimer'

EA | 30 mins | SIMPLE

Refer: Electronics Australia March 1991

Now in it's third revision by Jaycar, the flexitimer uses a 555 timer coupled with a binary counter to create a simple and consistent timing circuit. In the original one-shot mode the timer will count up to the set point and switch the relay once. In the additional interval mode the timer will continue switching the relay at each recurrence of the set point. The circuit can be set at 11 time points with the minimum being 7 seconds and each step doubling the time to a maximum of 2 hours. Other times are possible by changing components C1, R1, and R2. Features of the third revision include a restarting the one-shot mode from an external switch or signal, a more energy efficient design, and space on the PCB for terminal blocks (not included).



- Requires 12- 15V DC (use Cat. MP-3147 plugpack)
- Optional UB5 case (Cat. HB-6015)
- PCB Dimensions: 74 x 47mm

	Cat.	Qty 1+	Qty 5+
	KA-1732	$19.95	$17.70
12VDC PLUGPACK TO SUIT	MP-3147	$17.95 ea	
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Mains Timer Kit for Fans and Lights

SILICON CHIP | 90 mins | COMPLEX | DANGEROUS 240V

Refer: Silicon Chip Magazine August 2012

This simple circuit provides a turn-off delay for a 230VAC light or a fan, such as a bathroom fan set to run for a short period after the switch has been tuned off. The circuit consumes no stand by power when load is off. Kit supplied with PCB, case and electronic components. Overall timing period is set by capacitor C1. Supplied with 100nF for a delay of 1, 5, 10 or 20 minutes set by one of 4 links.

NEW 2013

For alternate times purchase the following capacitors:

C1	LK1	LK2	LK3	LK4
330nF	1 hour	30 mins	15 mins	4 mins
220nF	45 mins	20 mins	10 mins	2.5 mins
150nF	30 mins	15 mins	7.5 mins	2 mins
100nF*	20 mins	10 mins	5 mins	1 min
22nF	4 mins	2 mins	1 min	15 sec
15nF	3 mins	1.5 mins	45 sec	10 sec
4.7nF	1 min	30 sec	15 sec	5 sec

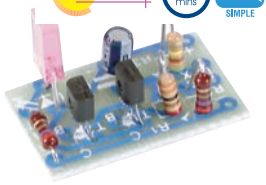
- 100nF supplied
- Handles loads up to 5A
- PCB: 60 x 76mm

	Cat.	Qty 1+	Qty 5+
	KC-5512	$39.95	$35.90

Liquid Level Sensor

KwiK Kit | 15 mins | SIMPLE

When two contacts are shorted by liquid, an LED will illuminate. Use in applications such as an overflow alarm and rain detector. Connect Relay Card KG-9142 for a relay output to operate lights, sirens or other warning devices.



- Project requires 9VDC.
- Kit supplied with Kwik Kit PCB and all electronic components.
- PCB: 45 x 15mm

	Cat.	Qty 1+	Qty 5+
	KG-9138	$9.95	$8.75
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Garbage & Recycling Reminder Kit

SILICON CHIP | 3 hours | DETAILED

NEW 2013

Refer: Silicon Chip Magazine January 2013

Easy to build kit that reminds you when to put which bin out by flashing the corresponding brightly coloured LED. Up to four bins can be individually set to weekly, fortnightly or alternate week or fortnight cycle. LEDs will flash for up to 18 hours or when you press the clear button. Features coloured LEDs to match bin lid, disable function for any LED, easy to program, optional individual day programming, week advance facility, 15 minute advance or hold facility, powered by 3V lithium cell, and low power drain. Kit supplied with silk-screened PCB, black enclosure (83 x 54 x 31mm), label, pre-programmed PIC, battery & PCB mount components.

- PCB: 75 x 47mm

	Cat.	Qty 1+	Qty 5+
	KC-5518	$29.95	$26.90

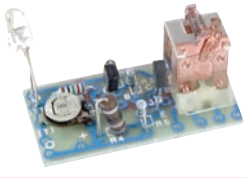
LIGHTING PROJECTS INDEX

Lighting	Cat.	Page
12V Light Operated Relay	KG-9090	75

12V Light Operated Relay

KwiK Kit | 30 mins | SIMPLE

This kit can operate as a twilight on/off switch or as a light trigger relay. Operated from 12 volts, this versatile project triggers a 6 amp relay when the light intensity falls below an adjustable threshold. Turn lights on around the house when it goes dark or trigger an alarm when a light is switched on. Kit supplied with Kwik Kit PCB, relay and all electronic components.



- PCB: 55 x 27mm

	Cat.	Qty 1+	Qty 5+
	KG-9090	$24.95	$22.35
12VDC PLUGPACK TO SUIT	MP-3147	$17.95 ea	

POWER KITS INDEX

Power	Cat.	Page
12VDC Relay Card	KG-9142	77
3V - 9V DC - DC Converter	KC-5391	77
DC Relay Switch 12V	KC-5434	77
Deluxe 10A Mains Motor Speed Controller	KC-5478	77
Improved Low Voltage Regulator	KC-5463	76
LED Battery Voltage Indicator	KA-1778	75
Motor Speed Controller	KC-5502	77
Regulated Low Voltage Adaptor	KA-1797	76
Simple 1.5A Switching Regulator	KC-5508	77
Soft Start Kit for Power Tools NEW	KC-5511	76
Solar Charger MPPT	KC-5500	77
Universal +/- 15VDC & 5VDC Power Supply	KC-5418	76
Universal Power Supply MKII	KC-5501	76
Voltage Regulator	KC-5446	76

LED Battery Voltage Indicator

EA | 15 mins | SIMPLE

Refer: Electronics Australia Sept 1995

Quick battery condition indication.

This tiny circuit measures just 25mm x 25mm and will provide power indication and low voltage indication using a bi-colour LED, and can be used in just about any piece of battery operated equipment. The circuit is suitable for equipment powered from about 6-30VDC. With a simple circuit change, the bi-colour LED will produce a red glow to indicate that the voltage has EXCEEDED a preset value.

- PCB, bi-colour LED and components
- 6-10VDC 3-8mA
- PCB: 25 x 24mm

	Cat.	Qty 1+	Qty 5+
	KA-1778	$9.95	$8.75
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

POWER KITS (CONTINUED)

Soft Start Kit for Power Tools

Refer: Silicon Chip Magazine July 2012

This kit stops that dangerous kick-back when you first power up an electric saw, router or other mains-powered hand tool. Place it in line with the power tool's mains power cord and when you squeeze the power tool's trigger it will slowly spin up and be at full power after about a second. This soft start process can help prevent damage to the job your working on, and to yourself when kick-back torque jerks the power tool out of your hand. Kit supplied with PCB, screen printed case, 2m power cord and specified electronic components.

- 240VAC
- Minimum load power: 100W
- Maximum load current: 10A
- PCB: 81 x 59mm

	Cat.	Qty 1+	Qty 5+
	KC-5511	$49.95	$44.90

Speed Control Kit for Induction Motors

Refer: Silicon Chip Magazine April/May 2012

Control induction motors* up to 1.5kW (2HP) to run machinery at different speeds or controlling a pool pump to save money. Also works with 3-phase motors. Full form kit includes case, PCB, heatsink, hardware and electronics.

- Controls single-phase or 3-phase induction motors
- Runs from a single-phase 230VAC, 10A power point
- Over-current, over-temperature, under-voltage, over-voltage and short-circuit protection
- EMI (electromagnetic interference) filtering for reduced radio interference
- Inrush current limiting
- Isolated control circuitry for safety
- Mounted in an IP65 sealed enclosure
- Adjustable speed ramp up/down
- Pool pump mode
- Can run 3-phase motors in either direction
- Optional external speed control pot with run, reverse and emergency stop switches
- Motor run/ramping and reverse indicator LEDs
- Fault indicator LED
- Open collector output provides either fault or up-to-speed indication

Specifications	
Motor power	up to 1.5kW (2 horsepower)
Maximum output voltage (single or 3-phase motor)	230V RMS
Continuous output current	8.5A RMS (single-phase), 5A RMS (3-phase)
Short term overload current	13A RMS (single-phase), 7.5A RMS (3-phase)
Switching frequency	16kHZ
Quiescent power	28W
Speed ramp period adjustment	3-30s to full speed
Continuous input current	up to 8.7A RMS
Speed control range	1-100% or 1-150% (0.5Hz or 75Hz) in 0.05Hz steps
Efficiency	Up to 96%
Speed control signal	0-3.3V
Up-to-speed/fault output sink	12V/200mA

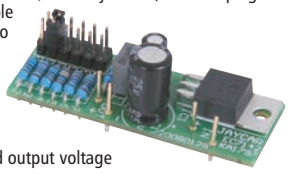
Please note that this is an advanced project for an experienced constructor.
*Note: Does not work for motors with centrifugal switch

	Cat.	Qty 1+	Qty 5+
	KC-5509	$229.00	$209.00

3V to 15V 1.5A Versatile Regulated Voltage Adaptor

Refer: Electronics Australia August, 1997

This kit is a low-powered DC converter for many car applications, for example, where you need a reliable voltage source for a portable CD player or similar battery-powered device. Another use for this adaptor is for a peripheral computer power supply to power external Zip drives, powered speakers, modems, music/MIDI keyboards, etc. Just plug its input into your PC's internal power supply cable and get selectable regulated voltage out from 3 to 15VDC. Output current capability is around 1.5 amps depending on the size of heatsink used - not included, available separately). All in all, quite a handy little kit!



- PCB plus electronic components included.
- Input voltage MUST be larger than the required output voltage
- PCB: 52 x 19mm

	Cat.	Qty 1+	Qty 5+
	KA-1797	$7.95	$6.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Universal +/- 15VDC 1A Power Supply Regulator

Refer: Silicon Chip Magazine March 2011

This is an upgraded version of the original universal power supply kit published in August 1988. One small board and a handful of parts will allow you to create either a regulated ±15V rail or +15VDC single voltage from a single winding or centre tap transformer (not included). Substitute different regulators to those supplied and you can alter the output voltage to your requirements. Upgrades in this design include improved parts layout and terminal blocks for inputs and outputs. Kit includes PCB and all components for 15 volt versions, transformer sold separately.

- PCB: 72 x 30mm

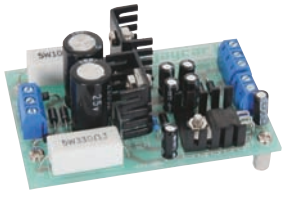
Power Supply Options:
- ±15V rails from 15V AC plug pack (MP-3059) or transformer (MM-2002)
- ±15V rails from 30V AC centre tapped transformer (MM-2007)
- +15VDC from a single or centre tap transformer.
- Different voltages using 78xx and 79xx series regulators (not included)

	Cat.	Qty 1+	Qty 5+
	KC-5501	$14.95	$13.35
Transformer to suit	MM-2002	$11.95	
Transformer to suit	MM-2007	$8.95	
Plugpack to suit	MP-3059	$29.95	

Universal +/- 15VDC & 5VDC Power Supply

Refer: Silicon Chip Magazine October 2005

This will provide regulated +/- 15V and +5V outputs. Toroidal transformer required (use MT-2086). The kit comes with all specified board components and quality fibreglass tinned PCB. Originally designed for KC-5417 Headphone Amplifier



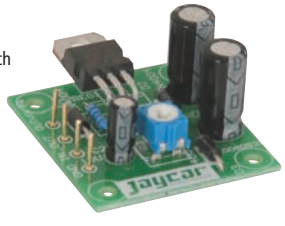
- PCB: 80 x 56mm

	Cat.	Qty 1+	Qty 5+
	KC-5418	$19.95	$17.70
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

13V to 22VDC 1A Voltage Regulator

Refer: Silicon Chip Magazine May 2007

This handy voltage regulator can provide up to 1,000mA at any voltage from 1.3 to 22VDC. Ideal for experimental projects or as a mini bench power supply. Kit supplied with PCB and all electronic components.



- Heatsink may be regulated depending on output current.
- PCB: 38 x 35mm

	Cat.	Qty 1+	Qty 5+
	KC-5446	$16.95	$14.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

3V, 5V, 6V, 9V, 12V or 15V 4A Improved Low Voltage Regulator

Refer: Silicon Chip Magazine May 2008

Need to operate a CD, DVD or MP3 player from the cigarette lighter socket in your car? Or perhaps run some powered speakers from the power supply inside your PC? The odds are you'll need this little adaptor to step the voltage down. It has a push-on jumper shunt to select one of six common output voltages 3V, 5V, 6V, 9V, 12V or 15V and, when used with an appropriate input voltage and heat sink, can deliver up to four amps at the selected output voltage. Kit includes PCB and all specified components.

Please note that to ensure trouble free 4 amp output., a heatsink with a thermal resistance of 1.4° C per watt, and an input voltage 3VDC above the output voltage is required.

- PCB: 108 x 37mm

	Cat.	Qty 1+	Qty 5+
	KC-5463	$17.95	$15.95

POWER KITS (CONTINUED)

1.2V to 20VDC 1.5A Switching Regulator

SILICON CHIP · 45 mins · DETAILED · SMD PRE-SOLDERED

Refer: Silicon Chip Magazine February 2012

Outputs 1.2 to 20V from a higher voltage DC supply at currents up to 1.5A. It is small, efficient and with many features including a very low drop-out voltage, little heat generation, electronic shutdown, soft start, thermal, overload and short circuit protection. Kit supplied with double sided PCB, pre-soldered surface mounted components and all PCB mount components.

- PCB: 49.5 x 34mm

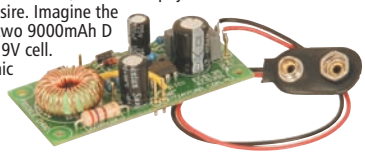
	Cat.	Qty 1+	Qty 5+
	KC-5508	$39.95	$35.90

3V to 9V DC to DC Converter

SILICON CHIP · 45 mins · DETAILED

Refer: Silicon Chip March 2004.

9V batteries are a great source of portable power, but let's face it - they don't last long if you want more than a few milliamps, and they are not real cheap either. This great little converter allows you to use regular Ni-Cd or Ni-MH 1.2V cells, or Alkaline 1.5V cells for 9V applications. Using low cost, high capacity rechargeable cells, the kit will pay for itself in no-time! You can use any 1.2-1.5V cells you desire. Imagine the extra capacity you would have using two 9000mAh D cells in replacement of a low capacity 9V cell. Kit supplied with PCB, and all electronic components.



- PCB: 59 x 29mm

	Cat.	Qty 1+	Qty 5+
	KC-5391	$15.95	$14.35
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

DC Relay Switch

SILICON CHIP · 30 mins · SIMPLE

Refer: Silicon Chip Magazine November 2006

An extremely useful and versatile kit that enables you to use a tiny trigger current - as low as 400µA at 12V to switch up to 30A at 50VDC. It has an isolated input, and is suitable for a variety of triggering options, including an AC or oscillating signal. It also has a relay-on LED indicator.

- PCB, relay and components.
- 12VDC 150mA.
- PCB: 46 x 61mm

	Cat.	Qty 1+	Qty 5+
	KC-5434	$16.95	$14.95
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

12VDC Relay Card

KwiK Kit · 15 mins · SIMPLE

Add a relay output to your equipment.

This kit will close a relay's contacts with as little as 5mA to trigger the circuit. Literally any kit you see on these pages that uses an LED as a trip-condition indicator, can be used with this nifty project. Use the relay to sound buzzers, switch on lights, operate solenoids, trigger alarms, etc. Operation: common ground - output LED to ground

- Kit includes Kwik Kit PCB, relay plus electronic components.
- LED cathode must be connected to ground.
- PCB: 45 x 17mm.

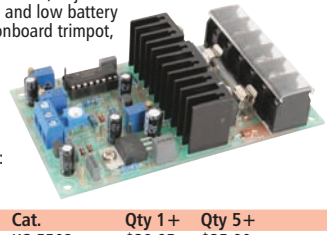
	Cat.	Qty 1+	Qty 5+
	KG-9142	$9.95	$8.75

12/24VDC 20A Motor Speed Controller

SILICON CHIP · 90 mins · DETAILED

Refer: Silicon Chip Magazine June 2011

Control the speed of 12 or 24VDC motors from zero to full power, up to 20A. Features optional soft start, adjustable pulse frequency to reduce motor noise, and low battery protection. The speed is set using the onboard trimpot, or by using an external potentiometer (available separately).



- Supplied with solder masked PCB with overlay and all onboard electronic components.
- Optional 10K external potentiometer: use RP-3510
- PCB: 106 x 60mm

	Cat.	Qty 1+	Qty 5+
	KC-5502	$39.95	$35.90
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

240V 10A Deluxe Motor Speed Controller

SILICON CHIP · 3 hours · DETAILED

Refer: Silicon Chip Magazine April 2009

Another motor speed controller? This one is a little bit different and offers boutique performance in the world of speed controllers. While the simpler circuit of our other motor controller kit (KC-5477) will control a motor's speed fairly well, it can't provide maximum speed as the output voltage is limited to about 160VAC maximum. It also doesn't provide great speed regulation and torque at low speeds. The deluxe kit addresses all these issues and provides full speed control from near zero to maximum RPM, good speed regulation under load, very smooth low speed operation and is rated for devices up to 2300W. It also has soft-start to eliminate the "kick" from larger power tools and has interference suppression filtering, fuse protection and over-current protection with limiting.

This kit really is the duck's guts for motor speed control. The case has the tricky cutouts pre-machined, but a little bit of extra drilling is required to complete the project.

- Overlay PCB and all components.
- Machined case included
- PCB: 112 x 142mm

	Cat.	Qty 1+	Qty 5+
	KC-5478	$99.95	$89.95

12V 120W 3-Step MPPT Solar Charge Controller

SILICON CHIP · 4+ hours · DETAILED

Refer: Silicon Chip Magazine February 2011

Charge controllers are essential for solar setups, although commercial units can run into several hundred dollars. Designed for use with 40W to 120W 12V solar panels and lead acid batteries, this solar charge controller kit provides 3-stage charging with the option of equalisation and with MPPT (Maximum Power Point Tracking). Operation is for 12V panels and batteries, but a 24V upgrade will be available in future. Kit includes PCB, all components and case.

- Suitable for 40W to 120W 12V solar panels
- 3-step charging
- MPPT (maximum power point tracking) charging
- Charge indicator LEDs
- Temperature compensation for charge voltage
- Optional equalisation cycle
- Optional 24V 80W to 240W operation upgrade
- PCB: 111 x 85mm

	Cat.	Qty 1+	Qty 5+
	KC-5500	$129.00	$115.95

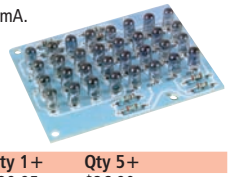
SECURITY PROJECTS INDEX

Security	Cat.	Page
IR Detector	KG-9086	77
IR Floodlight	KG-9068	77

Infrared Floodlight

KwiK Kit · 45 mins · SIMPLE

Let your CCD camera see in the dark! This infrared light is powered from any 12-14VDC source and uses 32 x infrared LEDs to illuminate an area of up to 5-metres (will vary with light conditions). The PCB measures 56 x 75mm and draws a current of about 300mA.



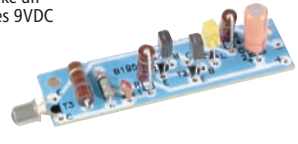
- Kit is supplied with silkscreened/ gold plated/ solder-masked PCB, 32 x Infrared LEDs and all electronic components. Use our plugpack supply, MP-3282.
- Not suitable for colour CMOS cameras.
- PCB: 74 x 55mm

	Cat.	Qty 1+	Qty 5+
	KG-9068	$29.95	$26.90
RECOMMENDED BOX - UB3	HB-6013	$3.95 ea	

Infrared Detector

KwiK Kit · 30 mins · SIMPLE

This kit will switch on LED when it detects infrared light from sources such as IR remote controls. Connect it to the Relay Card kit KG-9142 to make an infrared remote controlled relay. Project requires 9VDC



- Can be battery powered.
- Kwik Kit PCB, Infrared receiver and all electronic components.
- Use to test if your remote control is working.
- PCB: 55 x 15mm.

	Cat.	Qty 1+	Qty 5+
	KG-9086	$9.95	$8.75
RECOMMENDED BOX - UB5	HB-6015	$2.95 ea	

Test Equipment & Sci-Fi Kits

TEST EQUIPMENT INDEX

Test & Measurement	Cat.	Page
Digital Multimeter Kit	KG-9250	78
Transistor Tester	KA-1119	78
USB Power Monitor **NEW**	KC-5516	78

SCI-FI KITS INDEX

Sc-Fi	Cat.	Page
Jacob's Ladder Mk II	KC-5445	78
Jacobs Ladder Mk III **NEW**	KC-5520	78

Digital Multimeter Kit

2 hours · DETAILED

Learn everything there is to know about component recognition and basic electronics with this comprehensive kit. From test leads to solder, everything you need for the construction of this meter is included together will a detailed manual. With test questions and schematic supplied in the manual, the kit can be geared to an individual or class learning environment, making it an excellent choice for first year trade apprentices. Kit includes DMM case, LCD, solder, battery, test leads, PCB, comprehensive 18 page learning manual and electronic components.

- All you'll need is a soldering iron.
- Meter dimensions: 67(W) x 123(H) x 5(D)mm

RELATED PRODUCT...
Obviously we have a HUGE range of ready to go DMMs in our Test Section on page 11

	Cat.	Qty 1+	Qty 5+
	KG-9250	$24.95	$22.35

Transistor Tester

90 mins · MADE IN AUSTRALIA · BATTERY INCLUDED · SIMPLE

Refer: Electronics Australia September 1983

Have you ever unsoldered a suspect transistor only to find that it checks OK? Troubleshooting exercises are often hindered by this type of false alarm. You can avoid these hassles with the In-Circuit Transistor, SCR and Diode Tester. The kit does just that, test drives WITHOUT the need to unsolder them from the circuit! VERY HANDY! Kit includes a Jiffy box, battery and electronic components and panel showing truth table for device checking.

- PCB: 70 x 57mm

	Cat.	Qty 1+	Qty 5+
	KA-1119	$27.95	$24.95

USB Power Monitor Kit

SILICON CHIP · 60 mins · DETAILED

Refer: Silicon Chip Magazine December 2012

Plug this kit inline with one USB device to display the current that is drawn at any given time. Check the total power draw from an un-powered hub and its attached devices or what impact a USB device has on your laptop battery life. At the touch of a button the 4-digit LCD panel can display current, voltage or power. It is auto-ranging and will read as low as a few microamps and up to over an amp. It also features display flip-mode, mode memory and digital calibration.

NEW 2013

- Measurement modes: current, voltage, power
- Current resolution: 1uA (0-10mA), 1mA (10mA-1A)
- Voltage resolution: 10mV (4.5-5.5V)
- Power resolution: 10uW (0-10mW), 1mW (10mW-1W), 10mW (1-5W)
- Current precision: ±2.5% ±0.1mA (mA range), ±5% ±10uA (uA range)
- Voltage precision: ±2.5% ±10mV
- Power precision: ±5% ±0.1mW
- Load voltage drop: typically less than 50mV
- Power consumption: 5.3mA/26mW

SMD PRE-SOLDERED

Kit supplied with double sided, soldermasked and screen-printed PCB with SMDs and pre-programmed micro pre-soldered, LCD screen, and components.

- PCB dimensions: 65 x 36mm

	Cat.	Qty 1+	Qty 5+
	KC-5516	$59.95	$53.95

Jacob's Ladder High Voltage Display Kit MK2

DANGER HIGH VOLTAGE · SILICON CHIP · 60 mins · COMPLEX

Refer: Silicon Chip Magazine April 2007

With this kit and the purchase of a 12V ignition coil (available from auto stores and parts recyclers), create an awesome rising ladder of noisy sparks that emits the distinct smell of ozone. This improved circuit is suited to modern high power ignition coils and will deliver a spectacular visual display. Inspired by the good doctor's laboratory in the Frankenstein movie, use this kit for theatre special effects or just to impress your friends.

Kit includes PCB with overlay, pre-cut wire/ladder and all electronic components.

- 12V automotive ignition coil and case not included
- 12V car battery, 7Ah SLA or >5Amp DC power supply required and not included.
- PCB: 170 x 76mm

Warning: The Jacob's Ladder Kit uses potentially dangerous voltage.

	Cat.	Qty 1+	Qty 5+
	KC-5445	$42.95	$38.45

Jacob's Ladder MK3

DANGER HIGH VOLTAGE · SILICON CHIP · 2 hours · COMPLEX

Refer: Silicon Chip Magazine February 2013

A spectacular rising ladder of bright and noisy sparks for theatre special effects or to impress your friends. This improved circuit has even more zing and zap than it's previous design from April 2007 and requires the purchase of a VS Commodore 12V ignition coil (available from auto stores and parts recyclers). Kit supplied with silk-screened PCB, diecast enclosure (111 x 60 x 30mm), pre-programmed PIC, PCB mount components and pre-cut wire/ladder.

NEW 2013

- Powered from a 12V 7Ah SLA or 12V car battery (Note: Battery not included).

Warning: The Jacob's Ladder Kit uses potentially dangerous voltage.

	Cat.	Qty 1+	Qty 5+
	KC-5520	$49.95	$44.90

TECH TIP

CAN'T FIND THE KIT YOU'RE LOOKING FOR?

KIT BACK CATALOGUE

If you can't find what you're looking for, try the Jaycar Kit Back Catalogue. To keep up with the constant flow of new kits and maintain an up to date in-store line-up of projects, older and slow moving kits are returned to our central warehouse. We have included in this catalogue a number of the Kits that form our Back Catalogue. The range is divided up into sections. In this listing is included a brief description, the reference magazine and issue date of the article, a catalogue reference number and a unit price.

Magazine Icons

EA Electronics Australia (EA)

SILICON CHIP Silicon Chip Magazine (SC)

KwiK Kit Range of easy to assemble kits (no articles available) (KK)

Issue is referenced by month then year (MM/YY).
If the article ran over several months only the first month is referenced.

Dozens of kits listed on the following page!!!

MORE INFO WEB For the absolutely latest list refer to our website www.jaycar.com.au/kitbackcatalogue

KIT BACK CATALOGUE

For more details on our Kit Back Catalogue see the previous page Three easy ways to order these Kits:

1. **Order online at www.jaycar.com.au**
2. **Call our Free Call Order Hotline on 1800 022 888**
3. **Use the order form on page 496 and fax it to our Techstore**

AUDIO KITS

Description	Magazine	Issue	Cat.	1+
115WRMS/8Ω, 175WRMS/4Ohm Power Amp Module	SC	04/96	KC-5201	$95.95
Bass Blazer Baragrph Display	SC	02/01	KC-5305	$49.95
CD Audio Compressor Kit	SC	06/00	KC-5291	$83.95
CDROM Controller for Audio Playback	SC	12/07	KC-5459	$64.95
DAB+/FM Digital Radio	SC	08/10	KC-5491	$399.00
Digital Audio Delay	SC	12/11	KC-5506	$99.95
Guitar Mixer 4 Channel 12VDC	SC	06/07	KC-5448	$99.00
Power Amp Module 115W RMS/8 Ohm / 175WRMS/4 Ohm	SC	04/96	KC-5201	$95.95
Power Supply to suit 135W Distortion MkII Amplifier	SC	09/08	KC-5471	$29.95
Power Supply to suit SC-480	SC	01/03	KC-5347	$17.95
SC-480 50W Mono Amplifier Module V1 TO-218	SC	01/03	KC-5345	$49.95
Stereo Compressor	SC	01/12	KC-5507	$59.95
Stereo Headphone Distribution Amplifier Kit	SC	11/05	KC-5417	$34.95
Studio 350 - High Power Amplifier	SC	01/04	KC-5372	$175.00
Subwoofer Controller	SC	08/07	KC-5452	$99.95
Theremin Synthesiser Kit	SC	08/00	KC-5295	$59.95
Theremin Synthesiser - Midi	SC	04/05	KC-5410	$159.00
Universal Speaker Protection & Muting Module	SC	07/07	KC-5450	$34.95

AV KITS

Description	Magazine	Issue	Cat.	1+
Annunciator with 75mm High Digits - 00 to 99	SC	12/05	KC-5420	$59.95
AV Booster Kit	SC	04/03	KC-5350	$99.95
AV Distribuiton Amplifier with S-Video - Low Cost	SC	11/01	KC-5321	$139.95
Composite AV Distribution Amplifier - Low Cost	SC	11/01	KC-5320	$139.95
Dr Video Enhancer/Stabiliser MkII	SC	06/04	KC-5390	$99.95
Low Cost Composite Video/Audio Distribution Amplifier	SC	11/01	KC-5320	$139.95

AV RADIO/FM KITS

Description	Magazine	Issue	Cat.	1+
100-200MHz VHF Converter	Kwik Kit		KG-9128	$29.95

AV VIDEO KITS

Description	Magazine	Issue	Cat.	1+
Component Video RGB Converter	SC	05/04	KC-5388	$99.95
Dr Video Enhancer/Stabiliser MkII	SC	06/04	KC-5390	$99.95
RGB to Component Video Converter	SC	08/04	KC-5398	$89.95
Video Enhancer / Stabiliser Kit	EA	08/97	KA-1798	$78.95
Video Enhancer & Y/C Separator	SC	08/04	KC-5394	$179.00

AUTO KITS

Description	Magazine	Issue	Cat.	1+
12V LED Light - PCB for Festoon 31mm (Interior Light)	SC	03/03	KC-5354	$4.95
12V LED Light - PCB for Festoon 41mm (Interior Light)	SC	03/03	KC-5355	$4.95
AV Booster/ Repeater Amplifier	SC	04/03	KC-5350	$99.95
Car Air Conditioner Controller	SC	01/07	KC-5437	$39.95
Car Turbo Timer with Case - PIC Based	SC	08/07	KC-5451	$44.95
Delta Throttle Timer	SC Book		KC-5373	$24.95
Digital Fuel Adjuster	SC Book		KC-5385	$69.95
Digital Fuel Mixture Display	SC	09/00	KC-5300	$67.95
Digital Pulse Adjuster	SC Book		KC-5384	$79.95
Digital Speedo Corrector	SC Book		KC-5380	$44.95
Digital Speedometer/Speed Alert	SC	11/99	KC-5279	$67.95
Driving Light Protector	SC	09/02	KC-5337	$19.95
Engine Immobiliser MK II	SC	12/98	KC-5255	$29.95
Fuel Cut Defeater	SC	02/07	KC-5439	$19.95
Gear Indicator	SC	01/03	KC-5344	$69.95
G-Force Meter	SC		KC-5504	$49.95
Independent Electronic Boost Controller	SC Book		KC-5387	$79.95
Intelligent Turbo timer	SC Book		KC-5383	$44.95
Knock Sensor to suit KC-5442	SC	03/07	KC-5444	$18.95
LED Duty Cycle Meter for Fuel Injected Cars	SC Book		KC-5375	$54.95
Marine Engine Speed Equaliser	SC	11/09	KC-5488	$39.95
Nitrous Fuel Mixture / Motor Speed Controller	SC Book		KC-5382	$24.95
PC Board for 12V LED Bayonet Style Lamp Kit (Stop / Tail)	SC	03/03	KC-5349	$8.95
PC Board for 31mm Festoon Style (Interior Light) Kit	SC	03/03	KC-5354	$4.95
PC Board for 41mm Festoon Style (Interior Light) Kit	SC	03/03	KC-5355	$4.95
Quick Brake - Emergency Light Trigger	SC Book		KC-5373	$24.95
Turbo Timer	SC	11/98	KC-5254	$29.95
Turn Your Car Into A Volvo	SC	08/99	KC-5273	$39.95
Universal High Energy Ignition Kit	SC	12/05	KC-5419	$94.95

COMPUTER KITS

Description	Magazine	Issue	Cat.	1+
AVR Adaptor Board for KC-5340	SC	03/06	KC-5421	$34.95
Front End Pre-Amp For PC Sound Cards	EA	08/98	KA-1811	$29.95
PC Infrared Transceiver Kit	SC	12/01	KC-5323	$21.95
PC IR Remote Control	SC	08/03	KC-5366	$39.95
PIC Programmer Checkerboard	SC	02/01	KC-5307	$99.95
Serial Programmer for DSPIC30F Series PIC Controller	SC	05/08	KC-5467	$74.95
SD/MMC Card Webserver In a Box	SC	11/09	KC-5489	$89.95
Test Instrument Interface for PC Sound Cards	EA	08/98	KA-1811	$29.95
USB Power Injector	SC	10/04	KC-5399	$29.95

HOUSEHOLD KITS

Description	Magazine	Issue	Cat.	1+
Clock Watchers Clock Kit with Blue LEDs	SC	06/05	KC-5416	$189.00
Clockwatcher's LED Clock -Analogue & Digital - Red	SC	06/05	KC-5404	$129.00
Digital Reaction Timer Kit	SC	06/03	KC-5360	$29.95
Door Bell Remote Control	SC	09/04	KC-5397	$14.95
Driveway Sentry	SC	11/04	KC-5402	$179.00
Jacob's Ladder High Voltage Display Kit	SC	09/95	KC-5191	$34.95
Portable Wireless Doorbell Kit	SC	09/04	KC-5397	$14.95
Remote Control Digital Timer	SC	08/10	KC-5496	$39.95
SMS Controller for Nokia Mobile Phones (5110/6110)	SC	10/04	KC-5400	$57.95
UHF Remote Controlled Main Switch	SC	02/08	KC-5462	$99.95
V8 Sounding Doorbell - Full Kit	SC	01/05	KC-5405	$79.95
V8 Sounding Doorbell - Short Form	SC	01/05	KC-5406	$49.95
Water Level LED Indicator MkII	SC	07/07	KC-5449	$39.95
Water Tank Level Meter - PIC Based	SC	11/07	KC-5460	$109.00
Water Tank Level Meter Telemetry Base Station	SC	01/08	KC-5461	$84.95

LIGHTING KITS

Description	Magazine	Issue	Cat.	1+
12VDC Emergency Lighting Controller	SC	01/08	KC-5456	$69.95
Basketball Scoreboard & Console - Wireless	SC	03/05	KC-5408	$799.00
Basketball Scoreboard Extra Scoreboard - Wireless	SC	03/05	KC-5409	$649.00
Bass Blazer Bar Graph Display	SC	02/01	KC-5305	$49.95
Luxeon LED Star Module Driver	SC	05/04	KC-5389	$29.95
Neon Tube Sound Display Kit	SC	11/01	KC-5322	$19.95

POWER KITS

Description	Magazine	Issue	Cat.	1+
12VDC-240VAC Inverter - Super Simple	Kwik Kit		KG-9006	$19.95
12VDC Car Battery Charger/Regulator	SC	07/97	KA-1795	$20.00
Battery Zapper MkI - Lead Acid	SC	08/05	KC-5414	$39.95
Battery Zapper MkII Add-on	SC	05/06	KC-5428	$59.95
Battery Zapper MkII for SLA Batteries	SC	05/06	KC-5427	$109.00
Power Tool Battery Charge Controller	SC	12/06	KC-5436	$39.95
Universal Drill/Motor Speed Controller	SC	02/09	KC-5477	$64.95

SCI-FI KITS

Description	Magazine	Issue	Cat.	1+
Jacob's Ladder High Voltage Display MkI	SC	12/95	KC-5191	$34.95
Starship Enterprise Door Sound Simulator	SC	05/06	KC-5423	$39.95

SECURITY KITS

Description	Magazine	Issue	Cat.	1+
4 Channel CCTV Switcher	SC	06/01	KC-5316	$59.95
50 Metre IR Light Barrier	Kwik Kit		KG-9196	$49.95
Alarm Raucous	SC	01/02	KC-5327	$29.95
Annunciator Kit	SC	12/05	KC-5420	$59.95
Driving Light Anti-Theft Kit	SC	09/02	KC-5337	$19.95
IR Light Barrier 18 Metre	Kwik Kit		KG-9096	$39.95
Raucous Alarm	SC	02/02	KC-5327	$29.95
RFID Security Module Receiver Kit	SC	06/04	KC-5393	$89.95
Screecher Car Alarm MKII	EA	01/99	KA-1813	$29.95
SMS Controller Module	SC	11/04	KC-5400	$57.95
Swimming Pool Alarm Kit	SC	09/00	KC-5298	$42.95
Telephone Dialler Kit for Burglar Alarms (Modem rqd)	SC	01/03	KC-5348	$65.00

TEST KITS

Description	Magazine	Issue	Cat.	1+
AC/DC Current Clamp Adaptor for Multimeters	SC	09/03	KC-5368	$34.95
LED Duty Cycle Meter for Fuel Injected Cars	SC Book		KC-5375	$54.95
Peak-Hold Injector Adaptor	SC Book		KC-5395	$19.95
Ultrasonic Water Tank Level Indicator	SC	09/11	KC-5503	$74.95

SHORT CIRCUITS 3

Description	Magazine	Issue	Cat.	1+
Short Circuits 3 Project #31 Computer Driven Display	SC3		KJ-8112	$20.95
Instructions for SC Project 31	SC3		KJ-8113	$2.50

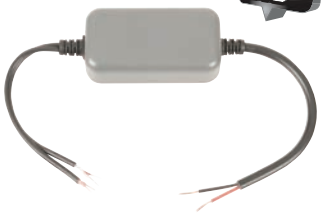
Pre-Assembled Modules

PRE-ASSEMBLED MODULES - AMPLIFIERS

Mono Amplifier Module

NEW 2013

This tiny module uses the LM386 audio IC, and will deliver 0.5W into 8 ohms from a 9V supply making it ideal for all those basic audio projects. It features variable gain, will happily run from 4-9VDC and is smaller than a 9V battery, allowing it to fit into the tightest of spaces.

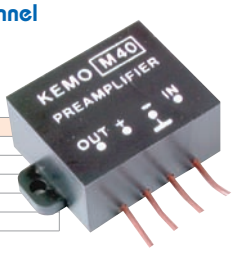


Specifications	
Power	4 - 9VDC
Dimensions	65(L) x 35(W) x 20(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0373	$8.95	$7.95	$6.95

Universal Preamplifier Module - 1 Channel

For microphones and diverse uses. This mini-module is simply connected between a power amplifier and a weak signal source (e.g. microphone).



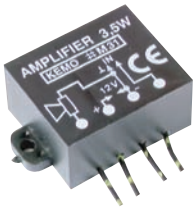
Specifications:	
Operating voltage:	9 to 24VDC
Frequency response:	10Hz to 100kHz
Input:	2-50mV
Output:	200mV - 1V
Dimensions:	30 x 25 x 15mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0220	$17.95	$15.95	$14.35

Universal Amplifier Modules - 1 Channel

3.5 WATT

Ideal as a bench-test amplifier for audio sources, or even as a mono headphone amplifier, this small audio amplifier can be operated from 4.5 V up to 12 VDC. Use two for stereo.



Specifications:	AA-0223 - 3.5 Watt
Output power:	3.5 W (max)
Operating voltage:	4.5 to 12 V
Speaker impedance:	4-16 ohms
Input sensitivity:	< 80mV
Frequency response:	40Hz-20kHz
Dimensions:	30 x 25 x 15 mm

12 WATT

Small audio amplifier module is suitable for a number of purposes and has a range of suitable input voltages and load impedances.

Specifications:	AA-0225 - 12 Watt
Operating voltage:	6V - 16V, 800mA (max)
Output power:	12W (max) into 4-16 ohms
Frequency range:	40Hz-20kHz
Input sensitivity:	80mV
Dimensions:	62 x 36 x 23mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
3.5W	AA-0223	$17.95	$15.95	$14.35
12W	AA-0225	$23.95	$21.35	$18.95

PRE-ASSEMBLED MODULES - OTHER

Tank Level Indicator Module

Battery-powered level indicator for measuring the level of water tanks from a distance of up to 100m. To take a measurement, you simply press the button on the front panel giving a 1 - 10 LED level readout. You'll need an 11 core cable to utilise all the measurement points, but you can use less if you like. No sensor is required as it works by simply sensing which conductor is submerged. No current is drawn except when taking measurements, so the batteries last for years. Requires 2 x AA batteries. Not suitable for combustible liquids such as petrol or diesel.

Specifications	
Operating voltage	3VDC
Current consumption during measurement	max 50mA
Measurement current	50µA per channel
Max. cable length	100m
Dimensions	120(L) x 70(W) x 20(H)mm

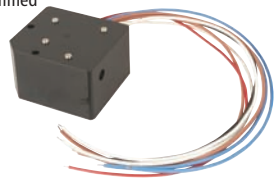
	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0370	$49.95	$44.90	$39.90

PRE-ASSEMBLED MODULES - SENSORS & TIMERS

Programmable Interval 12V Timer Module

NEW 2013

An easily programmed low cost electronic timer. It operates from 12VDC, with low current drain: <50mA when relay is on, <5mA when relay is off. It is link programmed for either a single ON timing period, or continuous ON/OFF cycling and can be link programmed for any of 48 different time periods, separately for ON time and OFF time. Selectable periods are 1/2/3/4/5/6/7/8/10/20/30/40/50/60/70/80 seconds, minutes and hours. It may be restarted at any time simply by pressing reset pushbutton.



Specifications	
Power	12VDC
Dimensions	72(L) x 65(W) x 43(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0378	$34.95	$31.45	$27.90

12V 3A Timer Module
2 Seconds to 23 minutes

A versatile and useful timer module that can be set for periods of 2 seconds to 23 minutes. The start and stop functions are controlled by simple switch inputs and the relay output can control a device of up to 23V 3A.

Specifications	
Operating voltage	12V
Current consumption	20mA
Time adjustment	2 sec to 23 min
Dimensions	60(L) x 45(W) x 20(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0364	$34.95	$31.45	$27.90

12 Volt Twilight Switch

This handy module senses the ambient light level and will switch external devices on/off at night and in the morning. The unit operates from 12VDC and its changeover contacts are rated at 25VDC @ 3A. Power consumption is only 2mA so it is ideal for automotive or battery-driven applications. Use it for garden lighting or security applications etc.

- Supplied fully assembled and tested.
- Dimensions: 72(L) x 50(W) x 32(H)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	AA-0323	$23.95	$21.35	$18.95

PRE-ASSEMBLED MODULES - TESTERS

LED Tester

NEW 2013

With this basic but essential tool it is possible to check the function, brightness, colour and polarity of most kinds of light emitting diodes (LED). The LED to be tested plugs into the front panel, at the current you wish to test it with. Two 10mA positions have been included on this multi-LED tester so that comparisons between two LEDs can be made simultaneously.

Specifications	
Operating voltage	9V
Test currents	1mA, 2.5mA, 5mA, 10mA, 20mA,50mA
Dimensions	58(L) x 44(W) x 25(D)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	AA-0274	$9.95	$7.25	$5.25

LED Tester Module

With this basic but essential tool it is possible to check the function, brightness, colour and polarity of all kinds of light emitting diodes (LED). The LED to be tested plugs into the front panel, at the current you wish to test it with. Two 10mA positions have been included on this multi-LED tester so that comparisons between two LEDs can be made simultaneously.

- Operating voltage: 9V
- Test currents: 1mA, 2.5mA, 5mA, 10mA, 20mA,50mA
- Dimensions: 58 x 44 x 25mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	AA-0272	$17.95	$13.35	$9.75

This colour pricebar denotes a Clearance item - check for specials.

PRE-ASSEMBLED MODULES - CARS

Multi-Voltage Regulated Adaptor Module

NEW 2013

This module is a low-powered DC converter for many applications, for example, where you need a reliable voltage source for a portable CD player or similar battery-powered device. Another use for this adaptor is for a peripheral computer power supply to power external Blu-Ray drive, powered speakers, modems, etc. Just plug its input into your PC's internal power supply cable and get selectable regulated voltage out from 3 to 15VDC*. Output current capability is around 1.5 amps. All in all, quite a handy little module!

- Dimensions: 63(L) x 24(Dia.)mm

Note: *Input voltage MUST be larger than the required output voltage

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0372	$8.95	$7.95	$6.95

Battery Discharge Protector

Protects your car battery from total discharge by switching off appliances such as fridges and TV sets before the battery voltage drops to an unrecoverable level. When battery voltage is re-established by recharging, it switches appliances on automatically. The interrupting voltage is adjustable from 10.4.to13.3 VDC. Essential low-cost insurance if you have a dual battery setup in a boat, 4WD, RV or for an alternative energy system such as solar or wind power.

Specifications	
Operating voltage	12VDC
Max. switching current	20A
Interrupting voltage	10.4 - 13.3VDC
Resetting voltage	approx. 0.8V (+/-0.3V) above interrupt voltage
Current consumption	< 0.7mA when OFF, < 1.6mA when ON
Dimensions	87(L) x 60(W) x 32(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0262	$39.95	$35.90	$31.90

Versatile Automotive LED Display Module for Cars

NEW 2013

This versatile module will allow you to monitor the battery voltage, the airflow meter, or oxygen sensor in your car. It features a 10 LED indicator that illuminates in response to the measured voltage so you can see if your O2 sensor is causing your car to run too rich or too lean. Preset 9-12V, 0-5V or 0-1V ranges, complete with fast response time, high input impedance and auto dimming for night time driving.

Specifications	
Power	12VDC
Dimensions	81(L) x 51(W) x 21(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0375	$24.95	$22.35	$19.70

Fuel Mixture Display Module for Cars

NEW 2013

This very simple module will allow you to monitor the fuel mixtures being run by your car. This type of sensor is also known as an E.G.O. (exhaust, gas, oxygen) monitor. You can use it as a tuning tool, to help in vehicle modification or simply to see the behaviour of the engine control module. Indication is via 10 LEDs to show mixtures rich, lean and normal. The circuit connects to the EGO sensor mounted in the exhaust manifold and the cars battery.

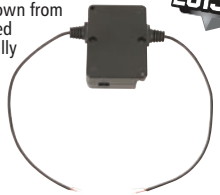
Specifications	
Power	12VDC
Dimensions	81(L) x 51(W) x 22(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0374	$24.95	$22.35	$19.70

Speedo Corrector Module for Cars

NEW 2013

When you modify your gearbox, diff ratio or change to a large circumference tyre, it may result in an inaccurate speedometer. This module alters the speedometer signal up or down from 0% to 99% of the original signal. With this improved model, the input setup selection can be automatically selected and it also features an LED indicator to show when the input signal is being received.



Specifications	
Power	12VDC
Dimensions	63(L) x 46(W) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0376	$39.95	$35.90	$31.90

Frequency Relay Module for Cars

NEW 2013

This module can be adapted to suit a range of different applications. It uses a standard tacho, road speed, or many other pulse outputs to switch a relay. The switch frequency can be set to trip when it is rising or falling, and it features adjustable hysteresis (the difference between trigger on/off frequency). You could configure it to trigger water spray cooling on deceleration, shift light activation, adjustable aerodynamics based on speed, intake manifold switching and much more.

- Dimensions: 72(L) x 65(W) x 43(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0377	$34.95	$31.45	$27.90

PRE-ASSEMBLED MODULES - MOTORS

Incandescent Lamp Flashers

FIXED - CAT. AA-0214

When connected in series within a 240V incandescent lamp (up to 600W) the lamp will turn off and on (95% brightness) fairly slowly - about once a second approximately!

- External fuse & suppressor capacitor (RG-5257) required.
- Dimensions: 60(L) x 45(W) x 20(H)mm

NEW LOWER PRICE

ADJUSTABLE - CAT. AA-0242

This unit only has 4 wires, 2 to the mains and 2 to the lamp. Will electronically switch on/off from 0.6-9.0 secs adjustable, lamps from 15-300 watts, incandescent only.

- External fuse & suppressor capacitor (RG-5257) required
- Dimensions: 70(L) x 50(W) x 40(H)mm with surface mount lugs

	Cat.	Qty 1+	Qty 5+	Qty 10+
Fixed	AA-0214	$19.95	$17.70	$15.70
Adjustable	AA-0242	$24.95	$22.35	$19.70

12VAC Motor and Lamp Controller

Continuously controls the speed of 12VAC motors and can also be used as a dimmer for incandescent lamps. With the addition of a rectifier, it can also be used to control DC motors and if you add a 100k or 200k pot, you can control 24 or 48V devices. Suitable for iron core transformers only.

Specifications	
Mode of operation	Phase control
Control range	approx. 0 - 90 %
Loading capacity	For resistive or inductive loads up to 10A max
Dimensions	approx. 87(L) x 60(W) x 32(H)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AA-0347	$44.95	$40.45	$35.90

Mains Motor and Lamp Controller

This module can be used for various mains rated applications including lamp dimming, soldering iron temperature adjustment and collector or split-pole motor speed control. Features a 600W continuous and 1200W peak loading capacity with adjustable potentiometer control. Please note: fluorescent, quartz and energy saving lamps, and motors with starting capacitors should not be used with this module.

- Knob included.

Specifications:	
Continuous power	600W
Maximum power	1200W
Dimensions	62 x 35 x 21mm

Please note that this kit operates on 240VAC mains voltage and you should be extremely careful when using these voltages. If in doubt, have an electrician check your work before applying power.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AA-0346	$34.95	$31.45	$27.90

PWM Controller

Control DC loads such as motors, lamps etc. Pulse Width Modulation(PWM) also allows electric motors to start smoothly at low RPM. Control range is approximately 5 % to 95 % of maximum output, set with a 47k potentiometer.

NEW LOWER PRICE

Specifications	
Operating voltage	9 - 28 V/DC
Max. current carrying capacity	10A with heatsink, 5A without heatsink
Control range	< 5% to > 95%
Control mode	pulse width modulation
Dimensions	86(L) x 60(W) x 33(H)mm

1 YEAR WARRANTY

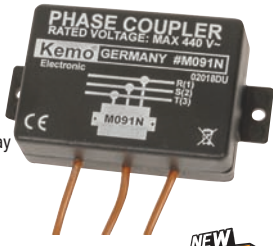
	Cat.	Qty 1+	Qty 5+	Qty 10+
	AA-0349	$49.95	$44.90	$39.90

Enclosures

PRE-ASSEMBLED MODULES - MOTORS (CONTINUED)

Phase Coupler Module

Capacitively connects three mains phases with each other so that transfer rates of up to 200 Mbit via the mains supply can be reached for Internet and networking (depending on the nature of the mains supply). If the signal is fed into a single phase supply, the phase coupler connects all 3 phases with each other so that these become permeable to the power line signal and the Internet or computer signal will also be available at all other sockets of the in-house network. Also suitable for wireless intercoms. A considerable increase of the range and transmission quality may be achieved.



- Voltage rating: 100 - 440VAC
- Dimensions: 72(L) x 50(W) x 28(H)mm

Note! This product must be installed by a licensed electrical contractor.

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0268	$39.00	$34.95	$30.95

Adjustable DC-DC Converter

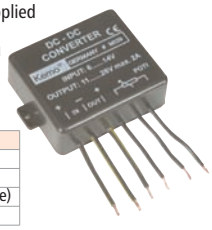
This handy unit will give an output from 3V to 15VDC @ 1.5A from an input of 6-28VDC about 2A. (The input voltage only has to be 3V higher than the output volts). The output voltage is regulated and short circuit protected. Will need modest heatsink for large voltage differentials.

- Ideal to run 6V from 12V
- Dimensions: 58(L) x 45(W) x 20(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0218	$29.95	$26.90	$23.70

DC to DC Voltage Step-up Converter

This compact DC to DC converter will double the voltage applied to its input terminals and produce an output voltage in the range of 11 to 26 volts DC at up to 2 amps. This allows you to operate 12 volt car radios, CB radios, amplifiers etc. in a 6 volt car or motor cycle etc. A potentiometer can be added to 'fine tune' the output voltages as required.



Specifications	
Input voltage	6 to 14VDC
Output voltage	11 to 26VDC
Output current	2 amps Max. (Depends on output voltage)
Dimensions	82(W) x 60(D) x 23(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0264	$44.95	$40.45	$35.90

REDUCER MODULES - 24 TO 12VDC

1.1 Amp Continuous

With the aid of this module it is feasible to operate 12V devices on 24V truck and marine batteries.

Specifications	
Input voltage	24 - 30VDC
Output voltage	12VDC approx
Maximum load	1.1A
Dimensions	60(L) x 55(W) x 20(H)mm

RELATED PRODUCT...
See page 303 for our full range of DC - DC Converters

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0265	$22.95	$20.35	$18.35

3 Amp 24V to 12V Reducer

Many trucks and boats use 24V systems. These converters will allow you to run a reasonably sized 12V car-stereo or other devices from a 24V supply. Heatsink (not included) should be used for superior performance.

Specifications	
Short-circuit protection	Thermal cutout.
Input voltage	24 to 26VDC
Output voltage	12VDC
Maximum load	3A
Dimensions	135(L) x 50(W) x 24(H)mm
Heatsink	50 x 100 x 30mm (rec. size) use Cat. HH-8572 or similar

1 YEAR WARRANTY

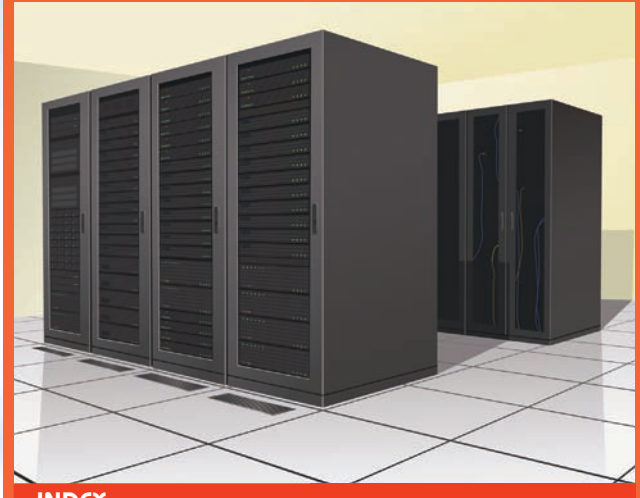
	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0266	$29.95	$26.90	$23.70

When you build your project what have you got to do then? That's right, you've gotta put it in a box - or as they say "an enclosure" for the really big projects.

We have a great range of regular boxes & enclosures but that's not to say we can't do better!

Check out our new Sealed IP65 Aluminium Boxes with the popular Flange Mounting option on page 83. We also have them in ABS plastic on page 86 & Polycarbonate on page 88.

We are very confident that you will find the right enclosure for your project within these pages.



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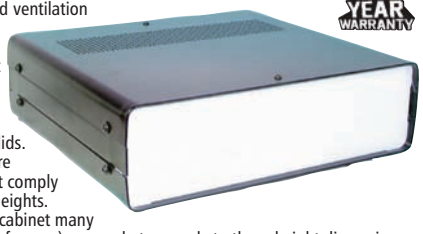
METAL INSTRUMENT CASES & ENCLOSURES

Professional Bench Enclosure



This cabinet has pre-punched ventilation holes, metal thread fastening screws, aluminium pre-painted front and rear panels, up to the minute styling and facilities to mount internal hardware without recourse to drilling lids. Apart from this, the enclosure features cabinet heights that comply with standard IEC297 rack heights. Even though it is not a rack cabinet many components (especially transformers) are made to comply to these height dimensions.

- Grey in colour.

W (mm)	D (mm)	H (mm)	Cat	Qty 1+	Qty 4+	Qty 10+
304	279	88	HB-5556	$59.95	$53.95	$47.90

Pro Quality Instrument Cases

Our superb instrument cases will give your projects the professional appearance they deserve.

- Internal mounting posts enable a wide combination of PCB's, transformers, etc., to be accommodated
- PCB guide rails provided internally allow vertical PCB positioning to several locations
- Removable front and rear panels, attractive textured finish one side and plain the other. (Enables direct engraving, silk screen printing etc., to plain side)
- Top and bottom split apart for ease of construction or service. Feet included
- Great for test instruments and other high grade projects

Available in 2 sizes

SMALL - NON VENTED

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
200	160	70	HB-5912	$19.95	$17.70	$15.70

LARGE - VENTED CASE

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
260	190	80	HB-5910	$22.95	$20.35	$18.35

Metal Enclosures

Aluminium cases finished in grey with black finish steel cover.
Ventilated and supplied with rubber feet.

RELATED PRODUCT...
See our range of knobs on page 190

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
83	102	53	HB-5441	$11.25	$9.95	$8.95
102	150	61	HB-5442	$14.95	$13.35	$11.70
134	150	76	HB-5444	$19.95	$17.70	$15.70
160	184	70	HB-5446	$24.95	$22.35	$19.70

IP65 Sealed Diecast Aluminium Boxes - Flanged Mount

Sealed aluminium enclosures for external use are provided with flanges and holes in the enclosure for wall mounting. Lid fixing bolts are located outside the sealing area to ensure better sealing. Made from aluminium alloy ADC-10 (JIS) and provides protection against dust and moisture (IP65). Features racks and guides for mounting a PCB horizontally or vertically.

	W(mm)	D(mm)	H(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
	90	36	30	HB-5029	$10.95	$9.75	$8.75
	64	58	35	HB-5031	$11.95	$10.70	$9.50
	115	90	55	HB-5044	$23.95	$21.35	$18.95
	171	121	55	HB-5041	$36.95	$33.45	$29.45

Economy Diecast Aluminum Boxes

- Excellent screening properties for EMI and RFI
- Ideal for projects subject to weather
- Made from 380 Die-cast aluminium alloy (BS1490 LM24)
- Ideal for instruments, meter cases, filter networks etc
- Robust,light weight/easy to machine
- Ideal for projects involving heat as the case itself makes an excellent heatsink
- Close fitting flanged lids

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
51	51	32	HB-5060	$7.95	$6.95	$6.25
111	60	30	HB-5062	$9.95	$8.75	$7.75
111	60	54	HB-5063	$12.95	$11.35	$10.35
119	94	34	HB-5067	$14.95	$13.35	$11.70
119	94	57	HB-5064	$18.95	$16.95	$14.95

IP65 Sealed Diecast Aluminium Boxes

This range of boxes compare in quality to those English and Canadian ones that are VERY expensive. These are ideal for housing electronic assemblies, pneumatic, hydraulic & electrical devices for commercial & industrial environments.

Provides effective shielding of EMI and RFI.

- Aluminium diecast - resistant to atmospheric and marine corrosion
- Designed to IP65 of IEC529 and NEMA4 (dust and hoseproof)
- Wall mounting holes and lid fixing screws are outside the sealing area
- The lid incorporates a recessed neoprene gasket
- Bosses on internal base for fixing PCBs horizontally or connection of earth grounding, etc
- Internal guide slots for mounting PCB assemblies vertically
- Screw holes for lid mounting are roll threaded
- Captive, recessed lid screws
- Heat rating up to 400° C

Specifications	
Wall thickness	3.4 +/-0.1mm
Box and lid	aluminium alloy ADC-10 to Japan Industrial Standard (JIS) in natural state
Gasket	neoprene, resistant to oil and petrol
Lid screws	M4 stainless steel (non magnetic)
Ground screw and washer	copper plated.

Manufacturers and bulk users - contact Jaycar for bulk pricing.

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
64	58	35	HB-5030	$9.95	$8.75	$7.75
115	65	30	HB-5036	$14.95	$13.35	$11.70
115	65	55	HB-5040	$18.95	$16.95	$14.95
115	90	55	HB-5042	$21.95	$19.70	$17.35
171	121	55	HB-5046	$34.95	$31.45	$27.90
222	146	55	HB-5050	$36.95	$33.45	$29.45

19" Rack Mount Cabinets & Accessories

19" RACK MOUNT CABINETS & ACCESSORIES

19" Rack Mount Cabinets

Ideal for studios, PA, sound reinforcement, IT, or phone systems installations, with a size and configuration to suit any application. Coupled with our wide range of accessories and options, these 19" rack cabinets offer outstanding features. All come in 1.8mm solid steel powder coated cabinets with clear tempered glass doors. The sides can be removed for installation or maintenance access and all panels are key-lockable.

- High strength and rigidity under load
- Contemporary design
- Integrated power distribution
- Lift off side panels
- Top or bottom cable entry
- Cooling fan hole
- Camlock closures
- Front, sides and back lock separately
- Wall mounting without brackets
- Static loading capacity 60kg

6U
Available flat packed or assembled
Dimensions: 530(W) x 360(H) x 450(D)mm
Flat Packed: Cat HB-5170
Assembled: Cat HB-5171

9U
Dimensions: 530(W) x 493(H) x 450(D)mm
Cat HB-5172

12U
Dimensions: 530(W) x 626(H) x 450(D)mm
Cat HB-5174

	Cat.	Qty 1+	Qty 4+	Qty 10+
6U Rack Mount - Flatpacked	HB-5170	$159.00	$142.95	$126.95
6U Rack Mount - Assembled NEW	HB-5171	$189.00	$169.95	$150.95
9U Rack Mount - Flatpacked	HB-5172	$199.00	$178.95	$158.95
12U Rack Mount - Flatpacked	HB-5174	$229.00	$209.00	$182.95

Swing Frame Rack Mount Enclosure

Swing frame enclosures allow you to access the rear of your rack system for maintenance or easier installation. Tempered glass doors and locking panels all round. 6 or 12 unit enclosures available.

6U
• Dimensions: 600(W) x 380(H) x 610(D)mm
Cat HB-5180

12U
• Dimensions: 600(W) x 630(H) x 610(D)mm
Cat HB-5182

	Cat.	Qty 1+	Qty 4+	Qty 10+
6U Swing Frame Rack Mount	HB-5180	$219.00	$196.95	$174.95
12U Swing Frame Rack Mount	HB-5182	$299.00	$269.00	$239.00

Open Wall Mount Rack Enclosures

Ideal for mounting in other enclosures, such as road cases, but can also be mounted stand-alone. One side is hinged so that patch panels can be easily accessed at the rear for reconfiguring patch sets.

2U OPEN WALL MOUNT RACK ENCLOSURE
• Dimensions:
485(W) x 95(H) x 300(D)mm
Cat. HB-5190

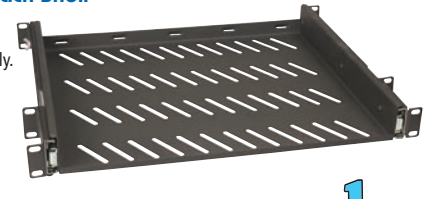
4U OPEN WALL MOUNT RACK ENCLOSURE
• Dimensions:
485(W) x 190(H) x 300(D)mm
Cat. HB-5192

	Cat.	Qty 1+	Qty 4+	Qty 10+
2U Open Wall Mount Enclosure	HB-5190	$39.95	$35.90	$31.90
4U Open Wall Mount Enclosure	HB-5192	$49.95	$44.90	$39.90

Ball Bearing Sliding Rack Shelf

Ideal for mounting computer keyboards or other equipment that needs to be accessed easily. The slides have ball bearing runners for smooth operation and will take a load of 20kg.

- Dimensions:
483(W) x 52(H) x 350(D)mm



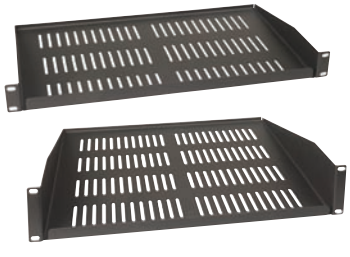
	Cat.	Qty 1+	Qty 4+	Qty 10+
	HB-5450	$99.00	$88.95	$78.95

Fixed 19" Rack Shelves

Ideal for tuners, CD players, amplifiers or any other equipment that you want to include in your rack but doesn't have rack-mounting ears. Each shelf is punched with ample slots for ventilation and a folded return front and rear to take loads of up to 20kg. Solid steel construction, black powder coated finish.

1U FIXED RACK SHELF
• Dimensions:
483(W) x 45(H) x 305(D)mm
Cat HB-5452

2U FIXED RACK SHELF
• Dimensions:
483(W) x 89(H) x 380(D)mm
Cat HB-5454



	Cat.	Qty 1+	Qty 4+	Qty 10+
1U Fixed Rack Shelf	HB-5452	$49.00	$43.95	$38.95
2U Fixed Rack Shelf	HB-5454	$69.00	$61.95	$54.95

19" Rack Blank Panels

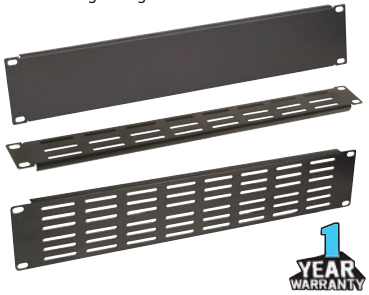
Blank panels for filling in unused space or configuring panels to your own requirements. Black powder coated steel, 1or 2 unit, vented or plain. The vented panels are also useful at the back of rack enclosures for attaching wiring looms to.

1U
• Dimensions: 483(W) x 45(H)mm
Cat HB-5420

2U
• Dimensions: 483(W) x 89(H)mm
Cat HB-5422

1U - VENTED
• Dimensions: 483(W) x 45(H)mm
Cat HB-5424

2U - VENTED
• Dimensions: 483(W) x 89(H)mm
Cat HB-5426



	Cat.	Qty 1+	Qty 4+	Qty 10+
1U Blank Panel	HB-5420	$10.50	$9.25	$8.25
2U Blank Panel	HB-5422	$12.95	$11.35	$10.35
1U Vented Blank Panel	HB-5424	$18.95	$16.95	$14.95
2U Vented Blank Panel	HB-5426	$27.95	$24.95	$22.35

19" RACK MOUNT ENCLOSURES & ACCESSORIES (CONTINUED)

Rack Panel Accessories

A range of accessories to complete your rack system - blank panels for filling in space, vent panels and panels for fans or mic sockets, braked castors and feet for keeping it all where you want it. Panels are black powder coated steel, 1, 2 or 3 unit.

1U 12 X XLR SOCKET PANEL
- Dimensions: 483(W) x 45(H)mm

Cat HB-5436

3U 3 X FAN PANEL
- Dimensions: 483(W) x 133(H)mm
- Suits 120mm fans

Cat HB-5438

UNIVERSAL BRAKED CASTORS
- Ball bearing swivel castors
- universal mounting plate
- Suitable for rack cabinets, speaker boxes, etc.
- Sold as a set of 4

Mount plate: 70(L) x 55(W)mm
Wheel: 50(Dia) x 30(W)mm
Overall Height: 75mm
Cat HB-5470

UNIVERSAL ENCLOSURE FEET
- Adjustable height
- M12 threaded shaft
- Supplied with locking nut
- Sold as a set of 4
- Suitable for rack cabinets, speaker boxes, etc.
- Dimensions: 60(H) x 50(Dia.)mm

Cat HB-5472

	Cat.	Qty 1+	Qty 4+	Qty 10+
1U XLR Socket Panel	HB-5436	$12.95	$11.35	$10.35
3U Fan Panel	HB-5438	$19.95	$17.70	$15.70
Braked Castors - Set of 4	HB-5470	$29.95	$26.90	$23.70
Adjustable Feet - Set of 4	HB-5472	$19.95	$17.70	$15.70

Rack Cable Supports

Takes the pain out of wiring and fault-finding rack cabinets. Your cables are kept organised and neat, with the support also providing strain relief.

1U
- Dimensions: 483(W) x 45(H) x 62(D)mm

Cat HB-5430

2U
- Dimensions: 483(W) x 89(H) x 82(D)mm

Cat HB-5432

	Cat.	Qty 1+	Qty 4+	Qty 10+
1U Rack Cable Support	HB-5430	$24.95	$22.35	$19.70
2U Rack Cable Support	HB-5432	$29.95	$26.90	$23.70

Pro Grade 19" Rack Style Equipment Enclosures

Complies with IEC 297 / EIA RS-310 C-1977 / DIN 41494 standards.

Each cabinet is made from phosphated steel and coated with a dark grey enamel. The colour matched rack front panel is in 3mm aluminium with extruded handles (excluding 1U). The rear panel is aluminium as well. The top, bottom and sides of each cabinet are liberally punched with ventilation holes.

All screw fasteners are metal thread - not self tappers. Top, bottom, front and rear of enclosure can be separately removed without affecting the integrity of the cabinet. Each enclosure comes with punched internal rail bars to facilitate PCB, transformer, filter capacitor etc, mounting independent of cover panels. Each cabinet also features an internal sub panel (in 1.5mm enamelled aluminium) which is adjustable from 0-20mm from the back of the front panel.

This panel is ideal for mounting panel hardware (no screws need appear on front panel). Rear panel is also adjustable 0-20mm inwards. The entire cabinet is packed flat for convenient transport. Rubber mounting feet are provided.

	Cat	Qty 1+	Qty 4+	Qty 10+
1 unit enclosure	HB-5120	$69.95	$62.95	$55.95
2 unit enclosure	HB-5125	$109.00	$97.95	$86.95
3 unit enclosure	HB-5130	$129.00	$115.95	$102.95

Dimensions(mm)	1U	2U	3U
Panel height	44	88	133
Cabinet height	39	84	128
Cabinet depth	245	335	335
Width	482.6	482.6	482.6

ABS Plastic Rack Mount Cases

The cases are made of strong ABS plastic and supplied in a knock-down form that can be assembled in seconds with just a screwdriver.

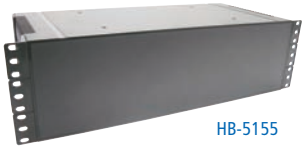
Slots are moulded into the top and bottom covers to provide good cross-flow ventilation while moulded PCB standoffs allow printed circuit boards to be mounted directly onto the covers. The cases are a practical alternative to the traditional heavy metal cases and are much lighter when mounting in racks and easier to machine when fitting connectors, controls or panel meters etc. Various sizes are available i.e. 1 unit (44mm), 2 unit (88mm) or 3 unit (132mm). All sizes are 200mm deep.

BLACK

Size	W(mm)	H(mm)	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
1U	203	431	1 Unit	HB-5140	$44.95	$40.45	$35.90
2U	203	431	2 Unit	HB-5150	$59.95	$53.95	$47.90
3U	203	431	3 Unit	HB-5155	$69.95	$62.95	$55.95

HB-5140

HB-5150



HB-5155

Patch Lead Management Panel

Keeps all your patch leads under control.

- 1U size.
- Removable cover plate

Dimension	Cat.	Qty 1+	Qty 4+	Qty 10+
483(W) x 45(H) x 68(D)mm	HB-5434	$29.95	$26.90	$23.70

Rack Mount Cat 5e/6 Patch Panels

Sleek attractive looking rack mount 24 port patch panel with a hard metal exterior. Numbered ports and a labelling area for each port. Also comes with instruction stickers on the back for easier cabling. See our tool section for punch-down tools.

- Takes up 1 rack unit
- 24 port
- Numbered ports
- Labelling area
- Cat.5e or Cat6

	Cat.	Qty 1+	Qty 4+	Qty 10+
24 Port - Cat 5e Panel	YN-8046	$49.95	$44.90	$39.90
24 Port - Cat 6 Panel	YN-8048	$69.95	$62.95	$55.95

Rack Cabinet Panels

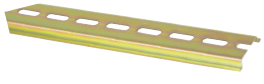
Quality brushed anodised panels in both silver (natural) or black finish

Finish	Size		Cat	Qty 1+	Qty 4+	Qty 10+
Natural	44mm	1U	HB-5401	$16.95	$14.95	$13.35
Natural	88mm	2U	HB-5402	$24.95	$22.35	$19.70
Natural	132mm	3U	HB-5403	$29.95	$26.90	$23.70
Black	44mm	1U	HB-5404	$16.95	$14.95	$13.35
Black	88mm	2U	HB-5405	$24.95	$22.35	$19.70
Black	132mm	3U	HB-5406	$29.95	$26.90	$23.70

DIN RAIL & ENCLOSURE MOUNTS

DIN Rail

Metal DIN rail, standard size for mounting power supplies, relays, terminals etc.



- 1 metre in length

Enclosure Mounts for DIN Rail

Makes mounting standard enclosures onto standard DIN rails easy. Supplied as a pair with self tapping screws for the enclosure.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HM-3092	$12.95	$11.35	$10.35
	HM-3094	$9.95	$8.75	$7.75

ENCLOSURES

ABS Enclosures

ABS ENCLOSURES

IP65 Sealed ABS Enclosures

- Made with ABS Material
- Moulded in dark grey
- Operating temperature: -20 to +80C
- Bosses on internal base allow fixing of PCBs horizontally, or connection of terminals etc.
- The lid and base incorporate a tongue and groove sealing system with a neoprene gasket
- Lid fixing screws are M-4 stainless steel (non-magnetic) into threaded brass inserts
- Wall mounting holes and lid fixing screws are outside the sealing area thus preventing the ingress of moisture and dust
- Some sizes also available with external flange to allow mounting after the box has been sealed
- Designed to IP65 of IEC529 and NEMS 4 (dust and hose proof)
- Internal guide slots for mounting PCB assemblies vertically (Not on HB-6120 or HB-6134)

HB-6125

Colour	W (mm)	D (mm)	H (mm)		Cat.		Qty 1+	Qty 4+	Qty 10+
Dark Grey	64	58	35		HB-6120		$5.95	$5.25	$4.75
Dark Grey	64	58	55	Flange	HB-6121	NEW	$6.95	$6.25	$5.50
Dark Grey	115	65	40		HB-6122		$8.95	$7.95	$6.95
Dark Grey	115	65	40	Flange	HB-6123	NEW	$9.95	$8.75	$7.75
Dark Grey	115	65	55		HB-6124		$9.95	$8.75	$7.75
Dark Grey	115	65	55	Flange	HB-6138	NEW	$10.95	$9.75	$8.75
Dark Grey	115	90	55		HB-6126		$12.95	$11.35	$10.35
Dark Grey	115	90	55	Flange	HB-6127		$14.95	$13.35	$11.70
Dark Grey	171	121	55	Flange	HB-6125		$19.95	$17.70	$15.70
Dark Grey	171	121	55		HB-6128		$17.95	$15.95	$14.35
Dark Grey	171	121	80		HB-6129		$21.95	$19.70	$17.35
Dark Grey	222	146	55		HB-6130		$24.95	$22.35	$19.70
Dark Grey	222	146	75		HB-6132		$28.95	$25.95	$22.95
Dark Grey	240	160	90		HB-6134		$37.95	$33.95	$30.45

IP66 Industrial ABS Enclosures

Gasket seals, stainless steel hardware and IP66 rated for use in industrial, marine and other harsh environments. The closures have a locking catch that engages to positively hold the lid closed until disengaged. Each enclosure includes a 1.8mm galvanised chassis for mounting DIN rail, switchgear, relays or circuit breakers. A size for any application.

Cover	L (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Opaque	200	200	130	HB-6404	$34.95	$31.45	$27.90
Transparent	175	125	75	HB-6412	$32.95	$29.45	$26.45

IPX8 Rated ABS Cases

Specified to IPX8 for continuous immersion to protect your valuable gear. All feature O-ring seals, stainless hinges, padlock rings, lanyards and a transparent lid so you'll know what you put where. Very tough cases suitable for boating, 4WD, fishing, camping or kayaking. A range of sizes to take anything from a mobile phone to a multimeter and tools.

• IPX8 rated • Lockable • Lanyard included

MPS202 ABS CASE
- Dimensions:
  Internal: 158(W) x 90(D) x 72(H)mm
  External: 182(W) x 120(D) x 75(H)mm
  Cat HB-6428

MPS1 ABS CASE
- Dimensions:
  Internal: 110(W) x 68(D) x 31(H)mm
  External: 132(W) x 100(D) x 40(H)mm
  Cat HB-6420

MPS302 ABS CASE
- Dimensions:
  Internal: 200(W) x 100(D) x 83(H)mm
  External: 224(W) x 130(D) x 88(H)mm
  Cat HB-6430

MPS201 ABS CASE
- Dimensions:
  Internal: 158(W) x 90(D) x 32(H)mm
  External: 182(W) x 120(D) x 42(H)mm
  Cat HB-6424

W(mm)	D(mm)	H(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
132	100	40	HB-6420	$14.95	$13.35	$11.70
182	120	42	HB-6424	$19.95	$17.70	$15.70
182	120	75	HB-6428	$22.95	$20.35	$18.35
224	130	88	HB-6430	$29.95	$26.90	$23.70

Bulkhead ABS Mount Cases

4 cases in the range. The two smaller sizes have moulded in square cable entries on each end, and holes for screws bolts to mount the case.

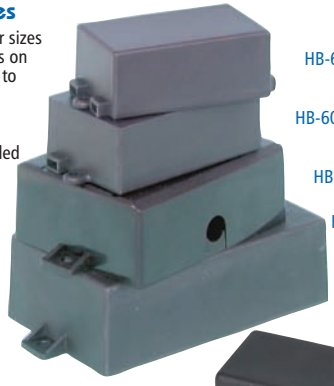
- Colour is black.
- The two larger cases have a moulded bracket at each end with a screw hole for easy mounting.

HB-6075
The base snaps into place, and there is a round 10mm dia hole in one side for cable entry.

HB-6080
The base mounts with 4 self tapping screws.

HB-6081
The base mounts to case with 4 self tapping screws included.

HB-6065
HB-6068
HB-6075
HB-6080



HB-6081

HB-6082
This case has mounting brackets at each end that are easily removable if you do not wish to mount the case.

It has a clear plastic front/top plate that allows you to view the contents of the box. This plate is screwed on from the base/back and cannot easily be removed from the front.
- Colour: Black and Clear

HB-6082

Bulkhead ABS Mount Cases

BLACK - HIGH IMPACT ABS

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
65	38	27	HB-6065	$2.65	$2.30	$2.07
72	44	28	HB-6068	$2.95	$2.60	$2.30
88	69	33	HB-6075	$3.75	$3.30	$2.95
112	67	36	HB-6080	$5.75	$4.95	$4.60

EXTRA DEEP BULKHEAD ABS MOUNT CASES

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
72	50	63	HB-6081	$9.95	$8.75	$7.75

BULKHEAD MOUNT CASE WITH CLEAR FRONT / TOP

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
120	70	30	HB-6082	$11.95	$10.70	$9.50

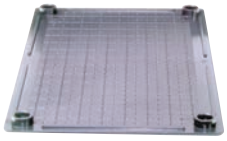
ABS ENCLOSURES (CONTINUED)

Jiffy Boxes

Manufactured from ABS plastic, these jiffy boxes not only look great, they have been designed to incorporate everything our customers wanted in a constructor's box. Sizes are compliant with industry standards externally and PCB fitting internally.

- Impervious, dimple-free finish provides good adhesion for screen printing
- Lids feature a 5mm grid of 'centre punch' type points on the underside for quick, easy and accurate drilling
- Lids also feature a 10mm grid of scribed lines providing an easy and precise guide for cutting or filing cut-outs
- PCB guides in the sides of the box have snap-in locators. Eliminates the need for stand-off hardware when mounting boards horizontally
- Box also has a grid of 'centre punch' type points on the base of the inside
- Supplied with lid fixing screws and safety concealment plugs

	External (mm)	To Fit PCB (mm)	
Size	Dimensions	Vertical	Horizontal
UB1	158 x 95 x 53	89 x 48	134 x 88
UB2	197 x 113 x 63	105 x 57	172 x 104
UB3	130 x 68 x 44	63 x 39	107 x 62
UB5	83 x 54 x 31	50 x 27	62 x 49



		Cat	Qty 1+	Qty 4+	Qty 10+
UB1	Black	HB-6011	$4.45	$3.95	$3.45
UB2	Black	HB-6012	$6.95	$6.25	$5.50
UB3	Black	HB-6013	$3.95	$3.45	$3.15
UB3	Grey	HB-6023	$3.95	$3.45	$3.15
UB5	Black	HB-6015	$2.95	$2.60	$2.30
UB5	Grey	HB-6025	$2.95	$2.60	$2.30
UB5	Clear	HB-6005	$2.95	$2.60	$2.30

BLUE (TRANSLUCENT IMAC® LOOK)

	Cat	Qty 1+	Qty 4+	Qty 10+
UB5	HB-6004	$3.45	$3.05	$2.75

Enclosure Potting Box

- Protect your electronic assemblies against shock, temperature, humidity and chemicals
- Moulded in high impact ABS plastic
- Black in colour
- Flammability rating: UL-94HB

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
39	39	27	HB-5202	$1.50	$1.35	$1.20
45	30	25	HB-5200	$1.00	$0.90	$0.80
70	50	20	HB-5204	$2.95	$2.60	$2.30

Polyurethane Potting Compound

This potting compound is composed of a polyurethane base which is designed to electrically insulate and protect against dust and moisture. It features good thermal conductivity along with superior adhesion to various metals and plastics requiring encapsulation.

- Allow 15 minutes for setting time
- Cures in around 4-5 hours
- 70ml

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NM-2016	$9.95	$8.75	$7.75

Flanged ABS Lids Version of Jiffy Boxes

These professional enclosures are identical to the UB3 & UB5 jiffy boxes, except they feature flanged lids for bulkhead/surface mounting. The exclusive moulded Jaycar drilling template on the inside of the lid is included, as are the screw hole plugs to hide the lid screws. Refer to the jiffy box information on the left for full detail on the drilling template. Ideal for automotive, security, audio/video plus a wide variety of other applications.

- Lid moulded, drill assist pilot holes on a 5 &10mm pitch
- Four hole plugs to improve finish
- Moulded in ABS plastic
- Exclusive to Jaycar.

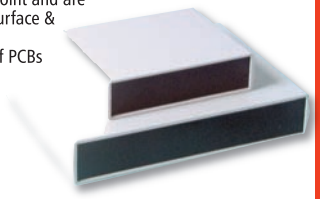
	Cat	Qty 1+	Qty 4+	Qty 10+
UB3 Black	HB-6014	$5.45	$4.90	$4.30
UB5 Black	HB-6016	$3.95	$3.45	$3.15
UB3 Grey	HB-6024	$5.45	$4.90	$4.30

ABS INSTRUMENT CASES

High Impact ABS Instrument Cases

These top quality cases are ideally suited for instrumentation, telecommunication, or just to make your projects look fabulous.

- Both have removeable ABS front and rear panels
- Top and bottom have a tongue and groove joint and are lightly textured which offers a non-scratch surface & keeps the high quality finish
- Guide slots provided for vertical mounting of PCBs
- Bosses are provided for horizontal mounting of PCBs
- Screws supplied to secure lid to base
- The large size has rubber feet supplied



GREY ABS - UL94HB

W (mm)	D (mm)	H (mm)	End Panels	Cat.	Qty 1+	Qty 4+	Qty 10+
140	110	35	Black	HB-5970	$8.95	$7.95	$6.95
225	165	40	Black	HB-5972	$22.95	$20.35	$18.35

Plastic Instrument Case

- Modern design case in matt finish surface.
- Ideal for desktop instruments.
- Top and base is in grey, with dark grey front and rear panels.
- Moulded in high impact ABS plastic UL-94-HB
- Includes 4 pcs screws and rubber feet

LIGHT GREY - DARK GREY END PANELS

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
95	158	47	HB-5922	$12.95	$11.35	$10.35

Console Box ABS

Moulded in high-impact ABS plastic, this console box comes with two facia panels - one blank, the other to suit LED/LCD display. Light grey in colour.

Dimensions:
- Facsia: 77 x 46mm
- Facsia Cut-out: 45 x 18mm.

LIGHT GREY - HIGH IMPACT ABS

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
150	95	29/50	HB-6090	$6.95	$6.25	$5.50

Mini ABS Instrument Case

The case is made from high impact ABS plastic and features adhesive rubber feet and removable front & rear plastic panels.

- Exclusive to Jaycar
- An ideal enclosure for AV projects, automotive, test gear, etc.

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
130	90	35	HB-5960	$9.95	$8.75	$7.75

Polycarbonate & Polystyrene Enclosures

ABS INSTRUMENT CASES (CONTINUED)

Remote Control Case

This case is ideal for a TV/VCR remote control. The case includes a battery compartment with sliding cover. It will accept either 2 x AA batteries or a 9V. The terminals for the AA batteries are included. The transmitting end of the box is supplied with 2 plastic panels, one the colour of the box, the other a red perspex for use with Infrared LEDs.

*Includes Battery Contact Kit & Translucent Panel

5 YEAR WARRANTY

BLACK - HIGH IMPACT ABS UL94VO

W(mm)	D(mm)	H(mm)	Flame Retard	Cat.	Qty 1+	Qty 10+	Qty 20+
135	70	24	No	HB-5610	$9.95	$8.75	$7.75

Keyfob Remote Control Case

Includes the case and hardware, which consists of pushbutton knobs, battery terminals, LED cover and keyring.

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
32	50	10	HB-5605	$6.45	$5.75	$4.95

Low Profile Hangable Case with Clear Front

This case is thin enough to hang on the wall with the clear section in the front allowing easy viewing of the contents. It has keyhole cut-outs for hanging, and the clear section is countersunk and held in place with self tappers included. Ideal for LED and display type projects.

- Window/internal size: 108 x 108 x 15mm

5 YEAR WARRANTY

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
130	130	17	HB-6083	$14.95	$13.35	$11.70

3 Pin Plug Pack Case

Make your own plug in power supplies with our vented case. Complete with earth pin!

- Plug pins to the new insulated standard

5 YEAR WARRANTY

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
55	47	95	HB-5900	$8.95	$7.95	$6.95

POLYCARBONATE & POLYSTYRENE ENCLOSURES

IP65 Sealed Polycarbonate Enclosures

- Made with Polycarbonate material
- Moulded in light grey.
- Operating temperature: -40 to +125C
- The lid and base incorporate a tongue and groove sealing system with a neoprene gasket
- Lid fixing screws are M-4 stainless steel (non-magnetic) into threaded brass inserts
- Wall mounting holes and lid fixing screws are outside the sealing area thus preventing the ingress of moisture and dust
- Designed to IP65 of IEC 529 and NEMA 4 (dust and hose proof)
- Internal guide slots for mounting PCB assemblies vertically (not on HB-6230)

5 YEAR WARRANTY

LIGHT GREY

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
82	80	55	HB-6230	$12.95	$11.35	$10.35
115	65	40	HB-6212	$13.95	$12.35	$10.95
115	90	55	HB-6216	$14.95	$13.35	$11.70
171	121	55	HB-6218	$19.95	$17.70	$15.70
171	121	80	HB-6224	$23.95	$21.35	$18.95
222	146	55	HB-6220	$29.95	$26.90	$23.70

LIGHT GREY WITH CLEAR LID

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
171	121	55	HB-6248	$23.95	$21.35	$18.95
115	90	55	HB-6246	$12.95	$11.35	$10.35

5 YEAR WARRANTY

LIGHT GREY WITH MOUNTING FLANGE

W (mm)	D (mm)	H (mm)		Cat.	Qty 1+	Qty 4+	Qty 10+
64	58	35		HB-6211	$9.95	$8.75	$7.75
115	65	40	NEW	HB-6213	$12.95	$11.35	$10.35
115	90	55		HB-6217	$16.95	$14.95	$13.35
171	121	55		HB-6219	$21.95	$19.70	$17.35
171	121	80	NEW	HB-6221	$25.95	$23.35	$20.70

LIGHT GREY WITH CLEAR LID WITH MOUNTING FLANGE

W (mm)	D (mm)	H (mm)		Cat.	Qty 1+	Qty 4+	Qty 10+
115	65	40	NEW	HB-6249	$14.95	$13.35	$11.70
115	90	55	NEW	HB-6251	$17.95	$15.95	$14.35
115	121	80	NEW	HB-6223	$28.95	$25.95	$22.95

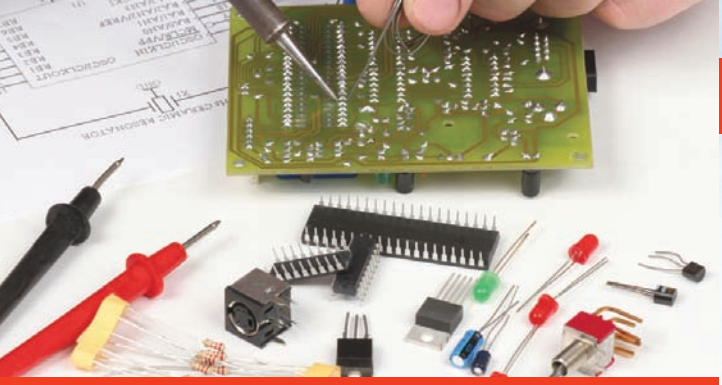
IP54 High Quality Polystyrene Enclosures

This range includes a small flat case that is ideal for remote control transmitters, up to a case that is ideal for bench test equipment, and the best thing is that they are not expensive. All are supplied with removeable front and rear panels which are light grey in colour, with the rest of the case dark grey. They are moulded in ABS, conform to IP54 and IEC529 and NEMA4 with respect to moisture and dust proof sealing and flame retardant to UL94-VO. Guide slots are provided for vertical mounting of PCBs, and spacers are moulded in for horizontal mounting. All but the smallest two have M3 screws and brass inserts to hold top and bottom together.

DARK GREY ABS - FLAME RETARDENT TO UL94

W (mm)	D (mm)	H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
90	50	16	HB-6030	$4.95	$4.45	$3.90
90	50	24	HB-6031	$5.95	$5.25	$4.75
120	60	30	HB-6032	$7.95	$6.95	$6.25
150	80	30	HB-6034	$12.95	$11.35	$10.35
190	100	40	HB-6036	$18.95	$16.95	$14.95

5 YEAR WARRANTY



Mechatronics & Learning

Mechatronics, the formal name for the study of robotic automation & electronic control has been a lively part of Jaycar's line up for the last few years. With the spectacular success of the Arduino development platforms, Mechatronics activity has benefitted enormously.

We have once again expanded our range of Arduino products. Whilst there has been at least one additional development platform launched in the last year the industry support for this product has been poor. Not so with the Arduino! The industry supporting Arduino is growing daily.

Expect to be continuously surprised & excited by new Arduino products.

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ARDUINO BOOKS

Getting Started with Arduino Book - 2nd Edition

The open-source Arduino development platform continues to gain popularity due to the ease of use and low development costs. Now in its second edition this book is aimed at the first-timer and explains what Arduino is, how it works, and what you can do with it. Additional sections include circuits and code to cover the building blocks of development such as digital input and output, analogue sensors, pulse width modulation output, and communications.

- Soft cover 128 pages.
- 216 x 140mm

BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7131	$23.95

Practical Arduino

A much larger and detailed book. It takes you beyond the basics quite quickly and shows you how to make up a typical application/design. Examples of typical projects, 14 in all are worked through, ranging from simple toquite complex. This is a necessity as it goes to the heart of Arduino.

- Softcover, 422 pages.
- 235 x 190mm

BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7132	$44.95

MORE ARDUINO BOOKS

NEW 2013

Programming Arduino: Getting Started with Sketches

This entry level book explains what an Arduino microcontroller actually is (i.e. a very small stand alone computer), introduces you to the Arduino programming language (called, "C") and then describes the basic configurations of Arduino modules. After this, the book really begins. It then goes into the detail of getting Arduino's to deal with the real world, finishing with a discussion on C++ and more sophisticated applications.

- Soft cover, 162 pages.
- 138 x 215mm

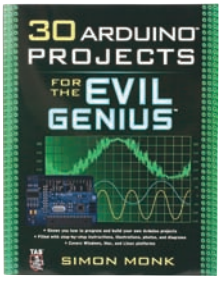
BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7133	$17.95

NEW 2013

30 Arduino Projects for the Evil Genius

This is a practical project oriented book describing lots of projects based around the Arduino microcontroller. Be warned, there is nothing intrinsically evil about this book. The title is a catchy marketing department trick. It does have, however, 30 practical projects which specify components all most of which are available from Jaycar. Hours & hours of evil fun.



- Soft cover, 191 pages.
- 220 x 275mm

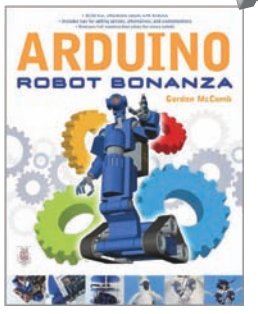
BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7134	$34.95

NEW 2013

Arduino Robot Builder's Bonanza

This book guides you through the construction of 7 robots that roll, walk, talk, slither and even sling insults at you. All projects feature the Arduino microcontroller platform. Step-by-step assembly diagrams and instructions provided.



- Soft cover
- 464 pages.

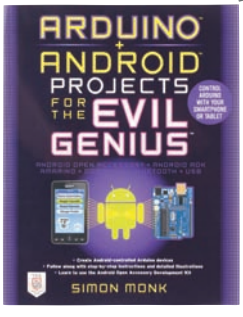
BOOK AVAILABLE

	Cat.	Qty 1+
	BM-7136	$36.95

NEW 2013

Arduino + Android Projects for the Evil Genius

Once again, not particularly evil, but another project oriented book written around Android-type mobile phones and the Arduino microcontroller. You can, for example turn your Android phone into a Geiger counter, a TV remote controller, etc. Many projects use both the Arduino and the Android culminating in the creation of a home Automation system.



- Soft cover, 197 pages.
- 215 x 275mm

BOOK AVAILABLE

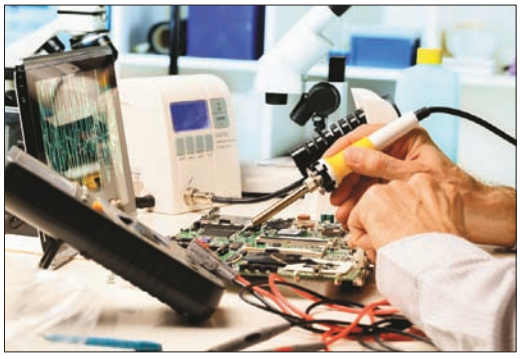
	Cat.	Qty 1+
	BM-7135	$34.95

Arduino

ARDUINO DEVELOPMENT KITS

DEVELOPMENT KITS

Getting started with microcontrollers used to be complex and expensive. Not any more! Arduino takes the pain out of creating microcontroller projects, with a variety of controller boards with different features and sizes plus a very simple to use free code editor that runs on Windows, Linux, and Mac®.



The code editor has an easy one-click "compile/upload" feature that uploads your programs via USB, so you don't even need an ISP programmer. Just plug the microcontroller board into your computer using USB, launch the editor, and you're ready to go.

Free software, hundreds of examples, circuit diagrams, programs, all kinds of projects and tutorials are openly available on the Internet to support these interactive boards. Many sensors, modules and displays can be used. You can also combine an Arduino microcontroller board with servo motors, DC motors, gearboxes, speakers, LEDs, switches, cases and many other electronic parts in our catalogue to make your project.

Arduino is also the most popular system for advanced microcontroller users and all kinds of interactive and ambitious projects. It's been used to make robots, home automation, automotive projects, for sensing and controlling lights, motors, locks and servos, sound and video, interactive objects like animated sculptures, toys and games, radio links and just about anything else you can dream up.

It can even be a web server and connect your projects to the Internet, and in 2013 there will even be an experimental satellite called "ArduSat" placed in orbit with 16 Arduino-compatible processors inside! You can learn more about ArduSat at www.ardusat.org.

Many off-the-shelf plug in and prototyping "Shields" are available. Shields plug straight into the top of your board to extend its capabilities: motor control, radio link receivers, relay drivers, display and keypad, Ethernet, WiFi, GSM mobile communication and more. Smaller "Modules" incorporating sensors, accelerometers, actuators, sound input and output, smart RGB LEDs and more are available to make it easy to connect interactive parts without fine soldering.

Online resources include the Australian forum, guides and more at www.freetronics.com, the Arduino website with language reference and large worldwide forum at www.arduino.cc, and an excellent range of tutorials at Aussie local John Boxall's www.tronixstuff.com. Of course Google and some of the books that we stock are also an excellent resource.

Parts for Arduino

There's no limit to general electronic components in our catalogue that can be used with your projects. LEDs, speakers, servo motors, DC motors, gearboxes, switches, cases, connectors and more are all available to put together whatever you need.

HERE ARE 3 SAMPLE PROJECTS FOR YOU TO REVIEW

Visit our website www.jaycar.com.au/arduino for project details

Online Temperature & Humidity

Easily create an Internet-connected temperature / humidity sensor, datalogger, and thermostat by combining an XC-4216 EtherTen and an XC-4246 Temperature / Humidity Sensor Module. You can even power it over the LAN cable using an XC-4254 4-Channel PoE Injector.

Water Flow

You can build many of the projects in the book "Practical Arduino" using parts from Jaycar. The Water Flow Gauge project described in the book can be built using the Eleven XC-4210, the Digital Flowmeter ZD-1200, the ProtoShield Basic XC-4214, and the 2-Line 16-Character LCD Panel QP-5517. Even the case and buttons featured in the book are from Jaycar!

RFID

You can build your own mobile phone accessories using the XC-4222 USBDroid, which connects to Android devices such as phones and tablets. It acts as a gateway to whatever sensors and other devices you want to connect to your phone, such as an RFID module so you can turn your phone into an RFID reader!

EXPERIMENT KIT

Arduino Experimenters Kit

Servo motor, lights, buttons, switches, sound, sensors, breadboard, wires and more are included with a Freetronics Eleven Arduino compatible board in this extensive hobby experimenter, inventor and starter kit. Complete with some great instructions and a supporting web page and software examples, this is everything you need to get started for a fun range of electronics and Arduino related projects.

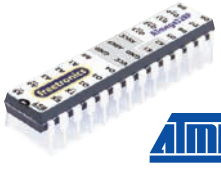
- No soldering required
- Instructions for many educational and fun projects included
- Supplied in a presentation box
- Dimensions: 340(W) x 165(H) x 36(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4262	$89.95	$80.95

ATmega328P MCU with Arduino Uno Bootloader

An ATMEL AVR ATmega328P microcontroller for you to build your very own customised Arduino compatible projects. For your convenience it comes with the Arduino Uno bootloader pre-installed and features a special label on top which details the pinouts.

- 23 programmable I/O lines
- 6-channel ADC
- 0 - 4MHz @ 1.8 - 5.5V,
  0 - 10MHz @ 2.7 - 5.5V,
  0 - 20MHz @ 4.5 - 5.5V
- 28-pin DIP format for easy use in breadboards or Arduino compatible boards



	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZZ-8726	$9.95	$8.75	$6.75

ARDUINO COMPATIBLE BOARDS

ELEVEN: The standard board, based on the Arduino Uno with some improvements.
ETHERTEN: With on-board Ethernet for LAN, web server and internet connections, plus a microSD card slot for extra storage. Can also be powered from the Ethernet cable remotely with a cable setup.
ETHERMEGA: A Mega sized EtherTen for big projects, more I/O pins, more flash memory and RAM, plus a switchmode power supply and all the same embedded Ethernet and features of the EtherTen.
USBDROID: With an on-board USB Host system, this board can interface with Android mobile phones and tablets for control and display, and other USB devices like GPS Receivers, some digital cameras, barcode scanners, keyboards and more.
LEOSTICK: A pocket sized USB board with most of the pins of the Eleven plus an on-board speaker, controllable RGB Colour LED, pin sockets and plug it directly into your USB port!
STEPDUINO: With two onboard stepper motor controllers, a servo controller, and a 20x4 LCD, this board is ideal for robotics and other mechatronics projects. Drive stepper motors straight from your controller!

Eleven (Arduino Uno Compatible)

The "Eleven" is just like an Arduino Uno - but better! It is based on the existing (at the time of print) Arduino Uno but with improvements and updates for ease of use, cost and getting started. An Arduino Uno like the "Eleven" is a microcontroller board based on the ATmega328 (see website for datasheet). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analogue inputs, a 16MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or battery to get started.

Also included in the package are a USB cable, and a Getting Started guide sheet. As well as standard Arduino Uno features, the Eleven has some improvements and updates that are listed on our website.

	Cat.	Qty 1+
	XC-4210	$39.95

EtherTen (Arduino Compatible with Onboard Ethernet)

Arduino and Ethernet. Until now the only way to connect an Arduino to the Internet via a LAN was to add an Ethernet Shield. The EtherTen is an Arduino compatible board that can talk to the world. Do Twitter updates automatically, serve web pages, connect to web services, display sensor data online, and control devices using a web browser. The EtherTen uses the same ATmega328P as the Uno and the same Wiznet W5100 chip used by the official Arduino Ethernet Shield, so it's 100% compatible with the Ethernet library and sketches. Any project you would previously have built with an Arduino and an Ethernet shield stacked together, you can now do all in a single, integrated board. Another feature is a MicroSD card slot so you can store web content on the card, or log data to it.

- Gold-plated PCB
- Top and bottom parts overlay
- Top-spec ATmega328P MCU
- Mini-USB connector: no more shorts against shields!
- D13 pin isolated with a MOSFET so you can use it as an input
- Power-over-Ethernet support, both cheapie DIY or full 802.3af standards-compliant
- Ethernet activity indicators on the PCB and the jack
- 10/100base-T auto-selection
- Fully compatible with standard Ethernet library
- Fixed SPI behaviour on Ethernet chipset
- Robust power filtering
- Rounded corners
- Dimensions: 76(W) x 54(D) x 19(H)mm

	Cat.	Qty 1+	Qty 5+
	XC-4216	$69.95	$62.95

StepDuino Arduino Compatible

A complete, self-contained Arduino-compatible board with onboard stepper motor drivers, servo interface, micro-SD card slot, and 20x4 character LCD. Perfect for building robots or other mechatronics projects: just connect up stepper motors and go! Even includes an interface for a commonly available Nintendo DS touch screen (not included) that can be fixed over the LCD or mounted beside it.

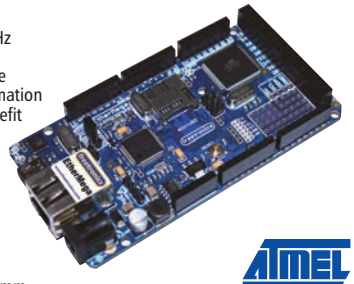
- ATmega32u4 MCU with 2.5K RAM and 32K Flash
- 2 x 4-wire stepper motor controllers
- 1 x servo interface
- Travel limit / collision detection switch inputs
- 20x4 LCD
- microSD card slot
- Serial communications header
- Compatible with the Arduino IDE
- Dimensions: 113(W) x 74(H) x 25(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4249	$149.00	$133.95

EtherMega, Mega Sized Arduino 2560 compatible with Ethernet

The ultimate network-connected Arduino-compatible board: combining an ATmega2560 MCU, onboard Ethernet, a USB-serial converter, a microSD card slot for storing gigabytes of web server content or data, Power-over-Ethernet support, and even an onboard switchmode voltage regulator so it can run on up to 28VDC without overheating! Amazing.

- ATmega2560 MCU running at 16MHz
- 10/100base-T Ethernet built in
- Can be used as a web server, remote monitoring and control, home automation projects and any projects which benefit from many control pins
- Power-over-Ethernet support with optional module
- 54 digital I/O lines
- 16 analog inputs
- MicroSD memory card slot
- Prototyping area
- Switchmode power supply
- Dimensions: 105(W) x 54(H) x 19(D)mm



	Cat.	Qty 1+
	XC-4256	$119.00

LeoStick (Arduino Compatible)

The very popular LeoStick is a tiny Arduino-compatible board that's so small you can plug it straight into your USB port without requiring a cable! Even with its tiny size it has a full range of analogue and digital I/O just like its larger cousins, and also has a user-controllable RGB LED on the board and an on-board Piezo/sound generator so you can make your board light up and play sounds without any extra hardware at all! We don't supply the headers pre-soldered in case you wish to use header pins instead (available separately)

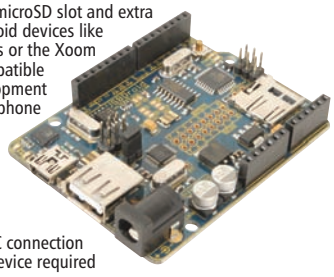
- ATmega32u4 MCU with 2.5k RAM and 32k Flash
- 6 analogue inputs (10-bit ADC) with digital I/O, 14 extra digital I/O pins
- Includes a getting started guide and header sockets for plug-in modules and projects.
- Compatible with the Arduino IDE
- User-controlled RGB LED
- Built in Piezo sound speaker
- Dimensions: 49(W) x 19(H) x 8(D)mm (11mm including header sockets)

RELATED PRODUCT...
For LeoStick Prototyping Shield see page 92

	Cat.	Qty 1+	Qty 5+
	XC-4266	$29.95	$26.90

USBDroid with Onboard Android/USB Host

Just like a Freetronics Eleven but with a microSD slot and extra USB port designed to connect with Android devices like the HTC Desire and Nexus mobile phones or the Xoom tablet. It is specially designed to be compatible with the Android Open Accessory Development Kit so you can write software to get the phone and USBDroid to talk to each other, enabling you to build your own Android peripherals to connect your phone to whatever you like. It even has a built-in charger to recharge the Android device.



- USB (A to Mini B) cable included for PC connection
- USB cable for connection to Android device required
- PCB dimensions: 68(L) x 53(H) x 19(H)mm

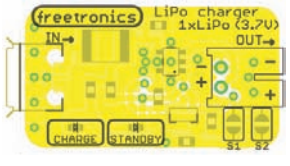
	Cat.	Qty 1+
	XC-4222	$69.95

BATTERY CHARGER

USB Li-Po Charger

Charge Li-Po cells from any USB source, USB plugpack, laptop or PC.

- 3.7V output for a single Li-Po cell
- Micro-USB jack
- "Charge" and "Standby" LEDs
- Selectable current limit: 100mA, 200mA, 03mA, 503mA
- Dimensions: 27(W) x 16(H) x 10(D)mm



	Cat.	Qty 1+	Qty 5+
	XC-4243	$12.95	$11.35

Arduino

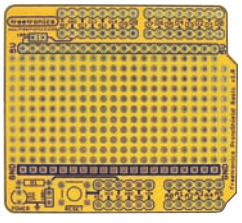
SHIELDS

Shields are expansion boards that plug into the top of your Arduino to extend its capabilities. Available shields include displays and keypads, radio link receivers, communications, motor and relay drivers, and much more.

ProtoShield Basic for Arduino

Breadboards are handy for quickly prototyping Arduino projects on the workbench but they are no good for making a more permanent project. The ProtoShield Basic is a low-cost Arduino prototyping shield that enables you to make more durable or permanent projects. It fits directly onto an Arduino compatible board such as the Freetronics Eleven and has a large general-purpose area in the middle where you can solder on your own parts. They're designed to be so cheap that you can keep a few around your workshop just in case you get the urge to build something. The PCB surface is gold-plated for maximum durability and it has connection markings on both the top and the bottom for easy identification.

- Gold plated
- Top and bottom overlay
- Yellow solder mask
- Mounting pads for reset button wired through to Arduino reset line
- Mounting pads for power on LED and current-limiting resistor
- Mounting pads for power supply capacitors
- Clearly marked GND and 5V rails beside prototyping area
- Dimensions: 59(L) x 53(W)mm

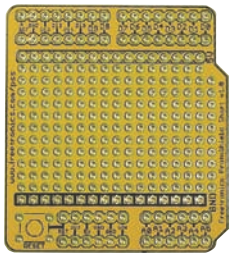


	Cat.	Qty 1+	Qty 5+
	XC-4214	$4.45	$3.95

ProtoShield Short for Arduino

A dedicated short version prototyping shield for the Freetronics EtherTen and EtherMega. This special prototyping shield is designed to fit neatly behind the RJ45 Ethernet jack, allowing you to stack your Ethernet-based projects right on top with standard headers.

- Pads available to fit a reset button
- Gold-plated surface for maximum durability
- Large free-form pad area for your own parts
- Dimensions: 49(L) x 54(W) x 2(D)mm

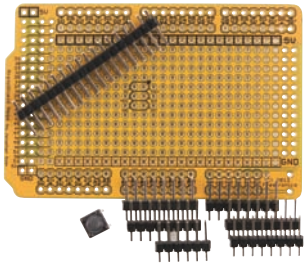


	Cat.	Qty 1+
	XC-4248	$4.95

Mega Prototyping Shield for Arduino

A super-size prototyping shield to fit the EtherMega (XC-4256) and Arduino compatible "Mega" size boards so you can fit your own parts for projects. Fits on the top of the EtherMega and provides a large matrix of plated-through holes for your own use. Includes header pin sets.

- Over 300 general-purpose plated holes for your parts
- Handy 5V and GND rails
- All Arduino I/O header pins branched out for your use
- Gold-plated surface
- Reset button
- Dimensions: 82(W) x 54(H) x 2(D)mm

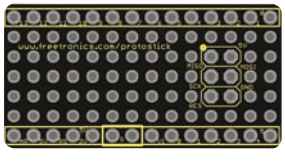


	Cat.	Qty 1+	Qty 5+
	XC-4257	$17.95	$15.95

LeoStick Prototyping Shield

Add your own custom parts to the LeoStick to build projects or add more I/O connectors. Fits on the top of the LeoStick and provides you a free matrix of plated-through holes for your own use.

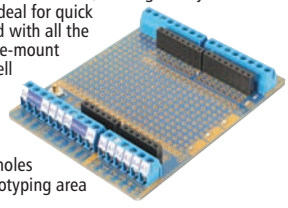
- 64 general-purpose plated holes for your parts
- All Arduino I/O headers brought up for your use
- Includes male header pins
- Gold-plated surface
- Dimensions: 36(L) x 19(W) x 2(D)mm



	Cat.	Qty 1+	Qty 5+
	XC-4268	$7.95	$6.95

Terminal Shield for Arduino

Breaks out all the Arduino headers to handy screw terminals, making it easy to connect external wires without using a soldering iron. Ideal for quick experiments or for robust connections! Supplied with all the supporting components already fitted as surface-mount parts so you can start using it right away, as well as stackable headers to allow you to mount another shield on top.



- Gold-plated surface for easy soldering
- Large prototyping area with through-plated holes
- Clearly marked GND and 5V rails beside prototyping area
- Blue surface-mount ipower oni LED
- Power supply smoothing capacitors
- Reset button wired through to the Arduino so you can reset it even with the shield mounted over the top.
- 3 general-purpose surface-mount LEDs (red, green, blue) with current limiting resistors pre-fitted
- Printed PCB overlay on both sides
- Dimensions: 79(L) x 61(W) x 26(D)mm

	Cat.	Qty 1+
	XC-4224	$16.95

RFID Lock Shield

NEW 2013

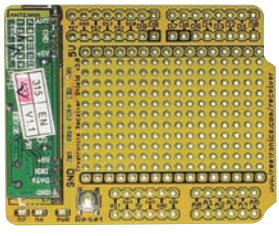
This shield allows your Arduino to control a door lock using an electric strike plate and one of a number of commonly available RFID modules. Based on a project in the book Practical Arduino, which includes extensive documentation. Example source code online.

- Supported readers include ID12, ID20, RDM630, RDM880, and HF MultiTag
- Onboard voltage regulator to power your Arduino
- Manual activation button connection
- Blue "Arduino power on" LED
- Green "External power supply on" LED
- Red "Strike plate activated" LED
- Dimensions: 49(W) x 54(D) x 27(H)mm

	Cat.	Qty 1+	Qty 5+
	XC-4215	$29.95	$26.90

433MHz Receiver Shield for Arduino

Add a receiver module to your Arduino project to receive signals from wireless devices including weather stations, home automation remote controls, power consumption meters, car alarms, and also many DIY projects that transmit on 433MHz. Supplied with RXB6 433MHz receiver module. Described in Practical Arduino Book BM-7132



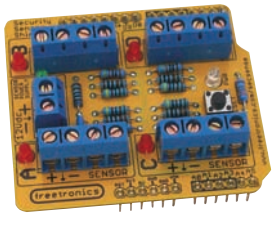
- Fully pre-assembled except for headers
- Includes stackable headers that you can solder in place
- Red and green debugging LEDs to display signal reception status
- Red and green SMD LEDs with current limiting resistors
- Reset button wired through to Arduino reset pin
- Blue power LED
- Power supply smoothing capacitors
- Huge prototyping area where you can add your own parts
- Clearly marked GND and 5V rails
- Printed PCB overlay on both sides
- Gold-plated surface for easy soldering
- Dimensions: 60(L) x 54(W) x 9(D)mm

	Cat.	Qty 1+
	XC-4220	$29.95

Security Sensor Shield

NEW 2013

This shield allows up to 4 security sensors to be connected to an Arduino with full End-Of-Line (EOL) support to detect tampering with the sensors or cable. EOL technology allows the system to detect a variety of events using a single cable pair to the sensor, including: sensor triggered; sensor cable cut; sensor cable short-circuited; sensor housing opened.

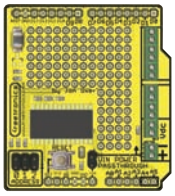


- 4 sensor channels
- Supports PIR motion sensors, microwave sensors, glass break detectors, etc
- Status LEDs on each channel
- Dimensions: 60(W) x 54(D) x 17(H)mm

	Cat.	Qty 1+	Qty 5+
	XC-4217	$69.95	$62.95

SHIELDS (CONTINUED)

H-Bridge Motor Driver Shield for Arduino

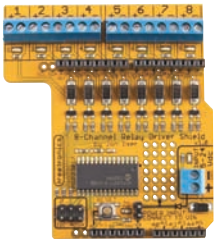


Directly drive DC motors using your Arduino compatible board and this shield, which provides PWM (Pulse-Width Modulation) motor output on 2 H-bridge channels to let your board control the speed, direction and power of two motors independently. Perfect for robotics and motor control projects.

- Drives up to 2A per motor channel
- All outputs are diode and back-EMF protected
- Dimensions: 60(L) x 54(W) x 12(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4264	$29.95	$26.90

8 Channel Relay Driver Shield



Drive up to 8 relays from your Arduino using just 2 I/O pins with this shield. It communicates with your board using I2C, so you can even stack several shields together to drive 16, 24, or more outputs! Includes back-EMF protection and works with a wide range of relays. Perfect for home automation projects when combined with relay SY-4052 and DIN-rail relay mounting base SY-4063.

- Plugs straight into your Arduino-compatible board
- Just 2 I/O pins required to control 8 outputs
- Individual LED status display on every output channel
- LED status displays for host power and external power
- Drive relay coils of 5V to 24V (with external power supply)
- Suggested relays like SY-4052 are rated at 2 x 5A @ 240VAC
- Dimensions: 52(L) x 66(W) x 12(D)mm

RELATED PRODUCT...
4 Channel Relay Driver Module also available see page 95

	Cat.	Qty 1+	Qty 5+
	XC-4276	$34.95	$31.45

DISPLAYS

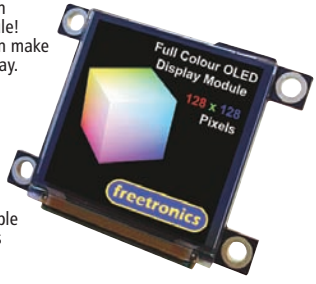
16 x 2 LCD Shield for Arduino

Add a 16 character by 2 line LCD display to your Arduino project. It plugs straight into the Arduino board or other project shields and features 5 buttons and a controllable blue backlight. The display can be panel mounted if required, and it works perfectly in 4-bit mode with the "LiquidCrystal" library included with the Arduino IDE, allowing you to control the LCD with a total of just 6 digital I/O lines. The buttons provide left, right, up, down, and select while using just one analogue input, which leaves the other analogue inputs free for you to use in your projects.

- 16x2 LCD using HD44780-compatible display module (white characters on blue background).
- 5 buttons on one analogue input (A0).
- LCD backlight with current limiting, brightness and on/off controllable by D3, can be moved to D2, D10, A1, A2, A3, A4 or A5 for easy project pin compatibility
- Recessed LCD, panel mount screw holes and button layout suitable for panel or cabinet mounting if desired
- Reset button
- Power supply smoothing capacitor
- Gold-plated PCB for maximum durability
- Overlay printed on both the top and the bottom
- Pins used by shield clearly marked, LiquidCrystal library setup reference is on the bottom of the PCB for convenience
- Dimensions: 85(L) x 53(W) x 23(D)mm

	Cat.	Qty 1+
	XC-4218	$29.95

128x128 Pixel OLED Display Module for Arduino

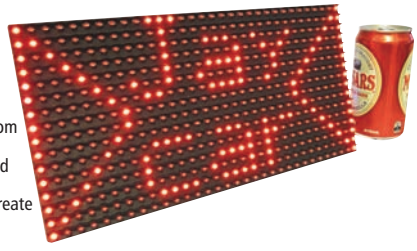


Light up your display needs with this high resolution, full colour OLED display module! Perfect for graphics, gauges, graphs, even make your own video game or interactive display.

- microSD card slot
- 16,384 full colour RGB pixels in a 128 x 128 format
- Active display area 28.8 x 26.8 mm, (1.5 inch diagonal)
- 4 removable mounting tabs
- Simple interface with Arduino compatible library, graphics and text functions plus examples
- Dimensions: 44(W) x 36(H) x 5(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4270	$49.95	$44.90

Large Dot Matrix Display Panel for Arduino



A huge dot matrix LED panel to connect to your Freetronics Eleven, EtherTen and more! This large, bright 512 LED matrix panel has on-board controller circuitry designed to make it easy to use straight from your board. Clocks, status displays, graphics readouts and all kinds of impressive display projects are ready to create with this display's features.

- 32 x 16 high brightness Red LEDs (512 LEDs total) on a 10mm pitch
- 5V operation
- Viewable over 12 metres away
- Tough plastic frame
- Controller IC is on board, simple clocked data interface
- Arduino compatible library, graphics functions and example support
- Dimensions: 320(W) x 160(H) x 14(D)mm (30mm(D) including rear connectors)

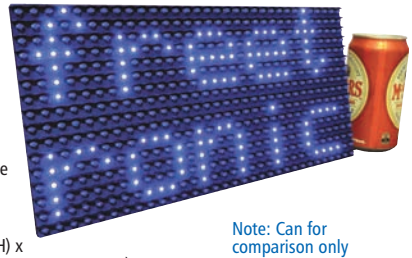
Note: Can for comparison only

	Cat.	Qty 1+
	XC-4250	$39.95

Large Dot Matrix Display Panel

NEW 2013

A huge dot matrix LED panel to connect to your Freetronics Eleven, EtherTen and more! This large, bright 512 LED matrix panel has on-board controller circuitry designed to make it easy to use straight from your board. Clocks, status displays, graphics readouts and all kinds of impressive display projects are ready to create with this display's features.



- 32 x 16 high brightness Blue LEDs (512 LEDs total) on a 10mm pitch
- 5V operation
- Viewable over 12 metres away
- Tough plastic frame
- Controller IC's on board, simple clocked data interface
- Arduino compatible library, graphics functions and example support
- Dimensions: 320(W) x 160(H) x 14(D)mm (30mm(D) including rear connectors)

Note: Can for comparison only

	Cat.	Qty 1+	Qty 5+
	XC-4251	$89.95	$80.95

Suit Controlled Humanoid Robot "EEP"

Makers Name: Nathaniel McTaggart **Location: New Zealand**

My invention is a humanoid robot that is controlled using a suit. The suit has sensors on it that I wear which controls the top half of the humanoid and the legs are autonomous. The humanoid robot uses 12 servos to control the top half which consists of 5 servos in each arm and 2 servos to control the head and it uses another 10 servos to control the bottom half of the robot 5 servos for each leg. The humanoid is controlled using a Arduino mega 2560 and currently runs off 8 x AA battery's, 4 x AA for the top half and 4 x AA for the bottom half and a 9v battery for the arduino.

The humanoid has an ultrasonic sensor for eyes in the head to enable the robot to make autonomous movements. I'm currently a student at Rangitoto College in my final year at high school and have been working on this project for approximately 6 months and I'm fully self taught using the internet.

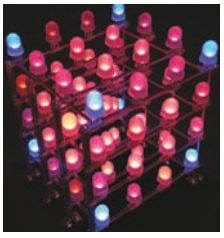
My humanoid is named EEP (Electronic, Educational, Project). The skills I have learnt doing this project have helped me to decide to pursue a mechatronics degree in 2014.

For more details scan the QR code or go to www.jaycar.com.au/makers

DISPLAYS (CONTINUED)

RGB LED Cube Kit 4x4x4 for Arduino

This stunning 3D-matrix of 64 RGB LEDs incorporates an onboard Arduino-compatible controller so you can produce mesmerising light shows controlled by software. Use it as a mood light, or create your own "ambient device" that gently notifies you of new email or instant messages!



- 4 x 4 x 4 matrix of individually addressable 8mm RGB LEDs
- Arduino driver library with example programs
- Includes ZigBee headers so you can add a wireless module
- Requires assembly
- Dimensions: 106(W) x 130(H) x 106(D)mm (assembled)

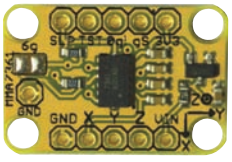
	Cat.	Qty 1+	Qty 5+
	XC-4274	$89.95	$80.95

MODULES

The many modules available give you easy connections with online guides for interactive sensors, actuators, displays, light and sound.

3-Axis Accelerometer Module

This 3-axis accelerometer module can operate in either +/-1.5g or +/-6g ranges, giving your project the ability to tell which way is up. Ideal for robotics projects, tilt sensors, vehicle data loggers, and whatever else you can dream up. Perfectly suited for Arduino projects.

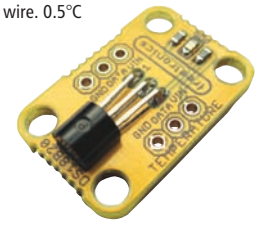


- Independent X, Y, and Z axis outputs
- Zero-G free-fall detection
- Can run from either 5V or 3.3V
- Dimensions: 23(W) x 15(H) x 4(D)mm

	Cat.	Qty 1+
	XC-4226	$19.95

Temperature Sensor Module for Arduino

Sprinkle these around your house to collect temperature data using your Arduino. This 1-wire bus temperature sensor module is easy to connect and use. You can even daisy-chain several together on the same wire. 0.5°C accuracy and fast response.

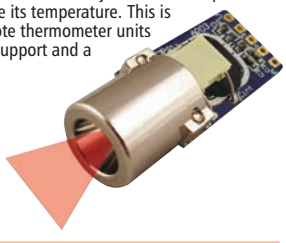


- -55 to +125°C temperature range
- +/-0.5°C accuracy
- Selectable 9 or 12 bit precision
- Arduino compatible library and examples support
- Unique device ID coded into every sensor
- Two sets of header connections to allow easy daisy-chaining
- Dimensions: 23(W) x 16(H) x 6(D)mm

	Cat.	Qty 1+
	XC-4230	$16.95

IR Temperature Sensor Module for Arduino

Remote temperature sensing for your Arduino! Connect this to your board and point it at a surface or heat source to remotely measure its temperature. This is our special version of the industrial infrared remote thermometer units with an onboard power supply, communication support and a software library and examples supplied.

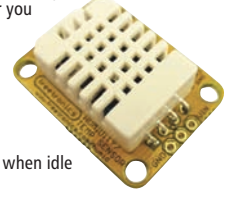


- 3.3 to 5V operation
- -33 to +220˚C measurement range, 1 second response time
- Free software library and examples
- On-board power supply and communications interface
- Dimensions: 38(W) x 14(H) x 12(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4260	$34.95	$31.45

Humidity & Temperature Sensor Module for Arduino

Measure temperature and relative humidity using a simple interface that requires just three wires to the sensor: GND, power, and data. Supported by an Arduino library that makes it very easy to read values into your project, so with a single I/O line from your microcontroller you can read both temperature and humidity.

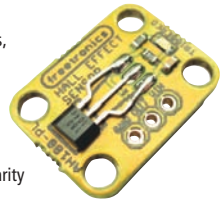


- -4°C to +125°C temperature range with +/-0.5°C accuracy
- 0-100% relative humidity with 2-5% accuracy
- 0.5Hz sample rate (one sample every 2 seconds)
- 3 to 5V operation
- Power consumption just 4.3mA during reads, even less when idle
- Blue power LED
- Dimensions: 31(W) x 23(H) x 4(D)mm

	Cat.	Qty 1+
	XC-4246	$19.95

Hall Effect Magnetic & Proximity Sensor Module for Arduino

Sense magnetic presence, rotating wheels and magnets, door and arm sensors, and anything else magnetic nearby this sensor.

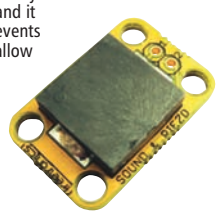


- Green "triggered" LED for easy setup and use
- Output turns on at 40 Gauss (4mT) and turns off at 30 Gauss (3mT)
- Senses both north pole and south pole magnetic polarity
- 2.5 to 5.5V operation
- Dimensions: 21(W) x 16(H) x 4(D)mm

	Cat.	Qty 1+
	XC-4242	$9.95

Sound & Buzzer Module for Arduino

This versatile piezo-element module can be used for either input or output! It can be used as a noise-maker driven by your microcontroller for audible feedback of events, and it can also be used as a knock-detector input to sense events and react to them. Includes a built-in 1M resistor to allow the piezo element to detect shocks.

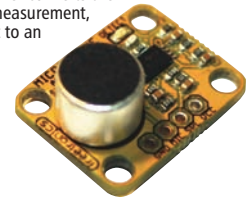


- Frequency response 0-20kHz, peak resonant frequency: 4KHz +/-500Hz
- Sound pressure level at 10cm: 75dB (min)
- 1 to 25V rated voltage (3 to 5V typical)
- Built-in 1M resistor for knock sensor functionality
- Dimensions: 23(W) x 16(H) x 5(D)mm

	Cat.	Qty 1+
	XC-4232	$9.95

Microphone Sound Input Module for Arduino

Give your project ears with this sound response and sound pressure level sensing module. An integrated dual signal amplifier converts the sound to separate channels for pulse and frequency measurement, and sound volume level. Designed to connect straight to an Arduino compatible microcontroller, Analog to Digital converter or many other circuits.



- Omnidirectional microphone
- Frequency response 60Hz to 15kHz
- Sensitivity -40dB typical
- Dimensions: 23(W) x 16(H) x 8(D)mm

	Cat.	Qty 1+
	XC-4236	$9.95

Full Colour RGB LED Module for Arduino

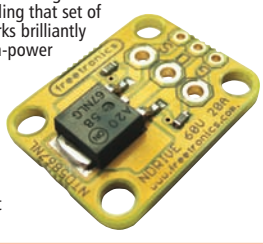
This is an LED with a brain! Includes a bright RGB LED on the top of the board and a WS2801 constant-current, addressable, multi-channel LED driver on the back. This smart module can be daisy-chained, so you can connect a number of these together in a string and drive each of the module colours individually from your microcontroller. The WS2801 includes its own built-in PWM outputs, so once you have set the brightness it will maintain it independently.

- 3.3 to 5V operation
- Constant current controller
- Requires just 2 data connections: clock and data
- Input and output headers on opposite sides of the board for easy daisy-chaining
- Dimensions: 18(W) x 18(H) x 5(D)mm

	Cat.	Qty 1+
	XC-4234	$9.95

N-MOSFET Driver & Output Module for Arduino

This high-power N-MOSFET module lets you switch high-current loads using a tiny microcontroller. Perfect for controlling that set of traffic lights mounted in your living room! Works brilliantly for automotive projects such as switching high-power 12V lights and high wattage LEDs.



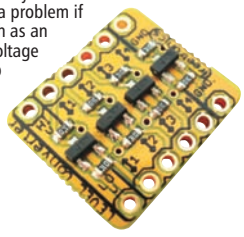
- Maximum 60V / 20A switched load
- Multiple connection headers for high-current wiring
- Built-in pulldown resistor to ensure output is off by default
- Drive directly from an Arduino digital output
- Dimensions: 23(W) x 18(H) x 5(D)mm

	Cat.	Qty 1+
	XC-4244	$6.95

MODULES (CONTINUED)

Logic Level Converter Module for Arduino

Many of the most interesting sensors and devices are only available in 3.3V or even lower voltage versions, which can be a problem if you want to connect them to a 5V microcontroller such as an Arduino. This module easily connects different logic voltage levels together for bi-directional communication on up to 4 channels, allowing you to use low-voltage sensors with a 5V microcontroller.

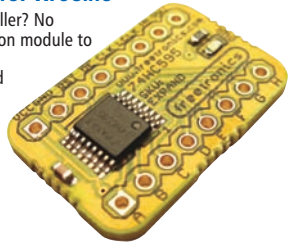


- 4 bi-directional channels
- Easily connect 3.3V sensors and devices to 5V microcontrollers
- Pass-through GND connection
- Dimensions: 18(W) x 16(H) x 4(D)mm

	Cat.	Qty 1+
	XC-4238	$6.95

Shift Register Expansion Module for Arduino

Run out of digital outputs on your microcontroller? No problem! Simply use this shift register expansion module to drive up to 8 devices using just 3 pins on your microcontroller. They can also be daisy-chained together so that you can drive 16 channels or even more without sacrificing precious output pins. Handy for all sorts of projects including driving LED 7-segment displays, dot matrix displays, multi channel relays and more.



- 8 output channels per module
- Daisy-chain multiple modules together
- 2 to 6V operation
- Blue power LED
- Dimensions: 23(W) x 16(H) x 4(D)mm

	Cat.	Qty 1+
	XC-4240	$6.95

4 Channel Relay Driver Module for Arduino

Easily drive up to 4 relays using logic-level outputs from your Arduino or other microcontroller. Isolates your microcontroller from the relay coils using FETs, includes back-EMF protection, and works with a wide range of relays. Perfect for home automation projects when combined with relay SY-4052 and DIN-rail relay mounting base SY-4063.

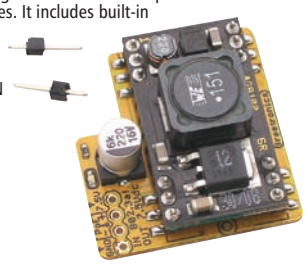
- Plugs straight into your Arduino-compatible board
- Individual LED status display on every output channel
- LED status display for external power
- Drive relay coils of 5VDC to 24VDC (with external power supply)
- Suggested relays like SY-4052 are rated at 2 x 5A @ 240VAC
- Dimensions: 36(W) x 23(H) x 12(D)mm

RELATED PRODUCT...
8 Channel Relay Driver Shield also available see page 93

	Cat.	Qty 1+	Qty 5+
	XC-4278	$13.95	$12.35

Power-over-Ethernet Regulator 802.3af Compliant for Arduino

Send power to your Arduino project over the network! This regulator module fits onto the Freetronics EtherTen or EtherMega to make them compatible with commercial 48V Power-over-Ethernet switches. It includes built-in smarts to communicate with the switch and negotiate a power rating for the device, then uses a switch-mode regulator to efficiently drop the 48V supplied via the LAN cable down to 7.5V for use by the Arduino compatible board.

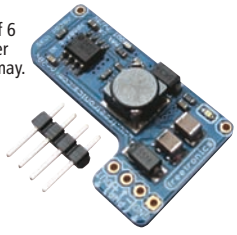


- Compatible with the XC-4216 EtherTen and XC4256 EtherMega
- Implements the official 802.3af Power-over-Ethernet standard
- 48VDC in, 7.5Vdc out
- 12.5W maximum power rating
- Dimensions: 31(W) x 33(H) x 12(D)mm

	Cat.	Qty 1+
	XC-4252	$29.95

Power Regulator 28V (Switchmode) for Arduino

This regulator is a high tech switchmode supply with a selectable 5V or 7VDC output. The input voltage range of 6 to 28VDC is very flexible and it will not overheat at higher input voltages like the 7805 and other linear regulators may.

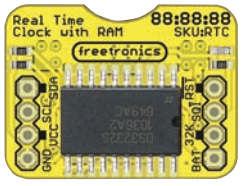


- Up to 1A output current at selectable 5V or 7VDC output voltage
- Can be used in any project as a high current low temperature power supply
- Can also be used for the EtherTen and EtherMega Power-over-Ethernet for efficient switchmode supply remote powering
- Blue power LED
- 0.1" pitch standard header pads
- Dimensions: 21(W) x 33(H) x 6(D)mm

	Cat.	Qty 1+
	XC-4258	$19.95

Real-Time Clock Module for Arduino

This handy module keeps accurate time for years using a tiny coin-cell, and is very simple to connect to your Arduino project. A driver library allows your program to easily set or read the time and date. Perfect for clock projects, dataloggers or anything that needs to know the date and time.



- Set or read accurate time/dates from your Arduino
- Keeps time without power using a CR1632 coin cell battery backup (supplied)
- 236 Bytes of addressable non-volatile memory, save serial numbers and important values
- Add a Dot Matrix Display panel XC-4250 and our Arduino board for a huge clock!
- Ideal for datalogging projects
- Free software library and examples
- Dimensions: 23(W) x 18(H) x 5(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4272	$29.95	$26.90

4 Channel PoE Midspan Injector for Arduino

Power up to 4 EtherTens or EtherMegas with DC from a low cost plugpack across your home or office network cables. This takes all the hard work out of cutting and hacking Ethernet cables to power remote boards, it isolates and powers the correct wires automatically.

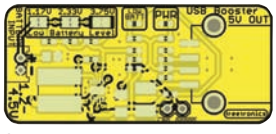
- 4 channels of input/output jacks
- 4 EtherTen or EtherMega boards can be connected directly and powered by standard network cables on the output side
- Commercial Power-over-Ethernet sources are not required
- Blue power LED
- Mounting holes / Dimensions: 88(W) x 53(H) x 19(D)mm

	Cat.	Qty 1+
	XC-4254	$26.95

USB-Boost

NEW 2013

Takes a power input of 1.2 to 4.5V, and boosts it to a regulated 5V output. Perfect for powering Arduino projects from batteries, such as a single 3.7V Li-Po cell. Can even be used to charge USB devices such as mobile phones from a low-voltage source. Includes status outputs so your microcontroller can actively monitor the status of the power supply.



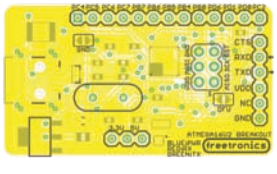
- USB output jack
- 1.2 to 4.5V input range
- 5V output
- 500mA maximum output
- Low-input automatic cut-off to protect battery
- Configurable low-input level of 1.17V, 2.33V, or 3.75V
- Low-battery warning LED
- Logic outputs for low-battery and power output OK
- Dimensions: 46(W) x 21(H) x 10(D)mm

	Cat.	Qty 1+	Qty 5+
	XC-4239	$12.95	$11.35

USB-Serial Adapter

NEW 2013

Connects to the USB port on your computer and acts as a virtual serial port, converting the USB signals to either 5V or 3.3V logic level serial data. Perfect for uploading programs to the KitTen.



Arduino-compatible board from the Arduino IDE, or to your own custom Arduino-compatible projects.

- Compatible with Windows, Mac, and Linux
- Dimensions: 46(W) x 26(D) x 10(H)mm

	Cat.	Qty 1+	Qty 5+
	XC-4241	$22.95	$20.35

Arduino & Prototyping Accessories

PROGRAMMER

ICSP Programmer for Arduino

NEW 2013

Program new applications into a wide range of microcontrollers using this ICSP programmer with a USB interface. Compatible with Arduino boards, ZZ-8726 ATmega328P MCU and fully supported by the Arduino IDE, allowing you to install or update Arduino-compatible boards and your own custom-made projects.

- Compatible with a wide range of microcontrollers, including all Arduino boards
- Compatible with the Arduino IDE on Windows, Mac®, and Linux
- Supplied with a USB cable and ISP programming cable
- Dimensions: 56(L) x 46(W) x 22(H)mm

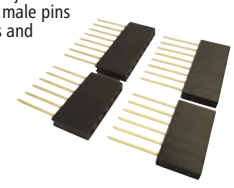
	Cat.	Qty 1+
	XC-4237	$24.95

PROTOTYPING ACCESSORIES

Stackable Header Set for Arduino

The perfect accessory to the ProtoShield Basic, Pro, and vero type boards when connecting to your Arduino compatible project. Stackable headers have female sockets on the top and male pins underneath, allowing you to conveniently stack boards and shields up in your project.

- Gold flash 0.1" pitch quality stackable headers
- 2 x 8 pin and 2 x 6 pin included to suit the Eleven, EtherTen, USBDroid and ProtoShields

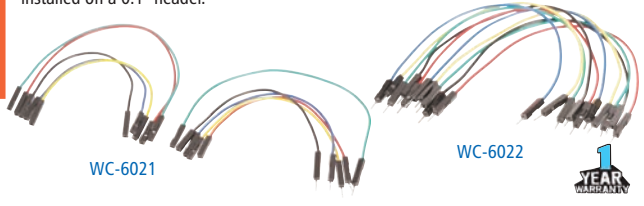


	Cat.	Qty 1+	Qty 4+	Qty 10+
	HM-3207	$2.95	$2.60	$2.30

Mixed Plug to Socket/ Socket to Socket Jumper Lead Set - 10 Piece

NEW 2013

Jumper lead sets for use in arduino projects, school experiments, or RC and other hobbyist activities. Each lead is 155m long. Can be installed on a 0.1" header.



	Pack	Cat.	Qty 1+	Qty 10+	Qty 50+
Plug to Socket/Socket to Socket	10	WC-6021	$3.95	$3.45	$3.15
Plug to Plug	10	WC-6022	$3.95	$3.45	$3.15

Mini Breadboard

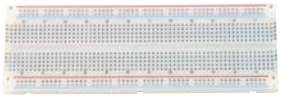
One terminal strip supplied which gives 30 holes x 10. Total 300 holes.

- Dimensions: 39(W) x 87(L)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8832	$9.95	$8.75	$7.75

Breadboard

- 840 tie points
- 200 distribution holes
- 640 terminal holes (Simply a combination of 2 x Distribution strip + 1 Terminal strip)
- Dimensions: 65(W) x 175(L)mm



	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8814	$19.95	$17.70	$15.70

Breadboard

- 1680 tie points.
- 400 distribution holes.
- 1280 terminal holes.
- Mounted on a metal plate.
- 3 banana terminals.
- Rubber feet.
- Dimensions: 157(W) x 237(H)mm.
- Board size: 130(W) x 175(H)mm.

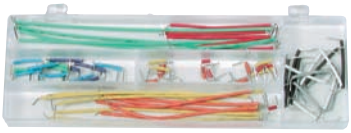
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8816	$39.95	$35.90	$31.90

Breadboard Jumper Kit

This kit consists of 70 pcs of single core sturdy wire which has been stripped on each end and bent at right angles.

- Specifically made for breadboards
- There are 5 pcs each of 14 different lengths.



	Cat.	Qty 1+	Qty 4+	Qty 10+
	PB-8850	$11.95	$10.70	$9.50

Economy Breadboard Jumper Kit

Solid core hookup cable, which is the ideal size for breadboards. Cut it to whatever lengths you require and strip the ends.

2 METRES EACH OF 5 COLOURS
Colours may vary from time to time.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Per Pack	WH-3032	$3.45	$3.05	$2.70

CHARGER LEADS FOR RC VEHICLES & TOYS

A range of charger, power and test cables with banana plugs, alligator clips and JST connectors. These are commonly used for toys, robotics, models, remote control hobby.

Female JST to 4mm Banana Plug Charger Cable

Commonly used for charging battery packs with JST plugs. The banana plugs connect to power source or charger with banana sockets.

- 22AWG PVC wire
- Approximately 600(L)mm

	Cat.	Qty 1+	Qty 10+	Qty 50+
	WC-6012	$4.95	$4.45	$3.90

JR Transmitter Charger Lead with Alligator Clips

Charger lead with alligator clips. Suitable for use with DC power supplies and charging other DC electronic devices.

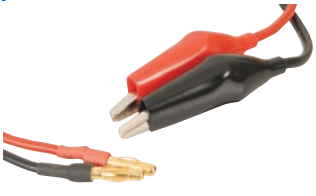
- 22AWG PVC wire
- Approximately 600(L)mm

	Cat.	Qty 1+	Qty 10+	Qty 50+
	WC-6014	$3.95	$3.45	$3.15

4mm Banana Plug to Alligator Clip Charger Lead

Used for battery charging applications and powering electronic devices connected to a power source.

- 16AWG silicone wire
- Approximately 300(L)mm



	Cat.	Qty 1+	Qty 10+	Qty 50+
	WC-6016	$4.95	$4.45	$3.90

2mm Male and Female Gold Connector Charger Lead

Supplied with one red and one black quick connect 2mm wire set. Ideally used in battery packs or any other applications where good connection is required but can be easily and quickly removed.

- 1 x 2mm female gold connector, 20AWG silicone wire
- 1 x 2mm male gold connector, 20AWG silicone wire
- Both approximately 100(L)mm each

	Cat.	Qty 1+	Qty 10+	Qty 50+
	WC-6018	$4.95	$4.45	$3.90

MOTORS

Standard DC Motors

THESE ARE NOT TOY MOTORS
Each motor briefly described below is a quality product with hardened drive shaft, sintered bearings and quality commutator brushes etc. They are ideal for any application where a compact high torque and reliable motor is required. Each motor is provided with a full data sheet which includes motor speed/torque/current/efficiency curves etc. Generous discounts for quantity purchases.

- 2.3mm driveshaft
- M2.6 threaded mounting
- Generously ventilated
- Solder tag terminals.

YM-2718

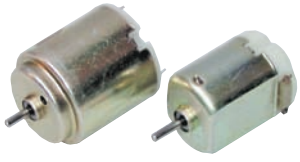
	YM-2712	YM-2716	YM-2718
VOLTAGE	6	12	12
NO LOAD			
Speed (RPM)	16,200	14,500	14,600
Current (A)	0.55	0.28	0.67
AT STALL			
Torque (G.CM)	185	520	2,500
Current (A)	5.6	4.3	18
AT MAX EFFICIENCY			
Efficiency (%)	49.6	66.1	55.1
Power (W)	5.96	5.56	26.5
Speed (RPM)	11,000	10,950	10,850
Torque (G.CM)	80	100	252
Current (A)	2	1.5	4.5
AT MAX POWER			
Speed (RPM)	9,000	8,100	6,500
Torque (G.CM)	80	180	1,300
Current (A)	2.6	2.4	8.0
DIMENSIONS (mm)			
Diameter	27.6	27.6	35.8
Total length	51	57	71
Shaft Length	12.5	13	9.5
Shaft dia	2.3	2.3	3.175
Mounting thread dia	2.6	2.6	3

RPM	Volt	Cat	Qty 1+	Qty 5+	Qty 10+
16,200	6	YM-2712	$6.95	$6.25	$5.50
14,500	12	YM-2716	$8.95	$7.95	$6.95
14,600	12	YM-2718	$12.95	$11.35	$10.35

Hobby Motors

Two models available. Ideal for hobbyist, experimenters, robotics and as replacements.

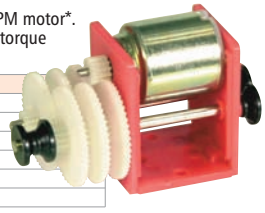
Cat.	YM-2706	YM-2707
Torque	Low	Medium
Operating volts	1.5-4.5V	1.5-4.5V
Nominal volts	3V	4.5V
Speed (no load)	12000rpm	12500rpm
Current (no load)	0.28A	0.25A
Speed (max eff)	8540rpm	9560rpm
Current (max eff)	0.69A	0.81A
Torque (max eff)	7.94gcm	17.86gcm
Diameter	20mm	23.6mm
Total length	25mm	25mm
Shaft length	8.1mm	6.5mm
Shaft dia	2mm	2mm



	Cat.	Qty 1+	Qty 5+	Qty 10+
Low	YM-2706	$2.95	$2.60	$2.30
Medium	YM-2707	$3.95	$3.45	$3.15

Low Cost Motor / Gearbox Set

This unit comes complete with a 3V 12,000 RPM motor*. It can be stepped down (with the consequent torque multiplication) up to six times as follows:



Specifications	
12,000 x 12/48	3,000RPM
3,000 x 12/48	750RPM
750 x 12/48	187.5RPM
187.5 x 12/48	46.875RPM
46.875 x 12/48	11.72RPM
11.72 x 12/48	2.93RPM

The motor is fitted with a 12 tooth pinion and the small gear cluster is 12 tooth. The large clusters are all 48 tooth. Not all gears need to be used. The intermediate output shafts are hardened steel, 3mm dia. Also supplied are press fit pulleys. The whole assembly snaps together. Hand tools are almost unnecessary.
*Motor can also be varied by changing input voltage but this lowers torque.
Motor cage - 40H x 25W x 28Dmm / Gearbox cluster - 40(W) x 25(D) x 30(H)mm
Main & intermediate shafts - 63 x 3mm Dia. Supplied in kit form.

Cat.	Qty 1+	Qty 5+	Qty 10+
YG-2730	$9.95	$8.75	$7.75

Standard (High Power) DC Motors

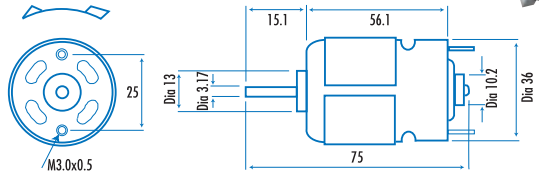
Astonishing speed and power from these compact ferrite magnet type DC motors. All units feature hard steel drive shafts, long life design and are built in an ISO 9002 quality environment.

YM-2774

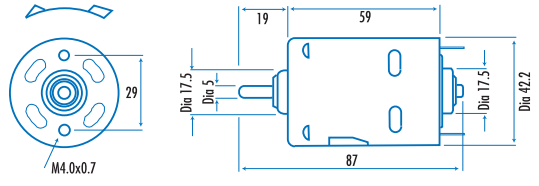
	YM-2770	YM-2772	YM-2774	YM-2776
VOLTAGE	12V	6V	12V	12V
NO LOAD				
Speed (RPM)	11,800	20,000	18,800	9,700
Current (A)	0.8	4.0	2.6	1.3
Operating range (V)	6-12	3-6	6-12	6-18
AT STALL				
Torque (kg/cm)	2.7	1.91	4.9	6.0
Current (A)	26	67	92	57
AT MAX EFFICIENCY				
Efficiency (%)	76	57	71	73
Power (W)	43	45	107	52
Speed (RPM)	9800	13730	15520	8490
Torque (kg/cm)	0.42	0.32	0.67	0.60
Current (A)	4.7	13.5	12.8	6.0
DIMENSIONS (mm)				
Diameter	36	42	42	42
Total length	71	78	78	85
Shaft length	15	19	19	19
Shaft diameter	3.17	5.0	5.0	5.0
Mounting thread	M3	M4	M4	M4

NEW LOWER PRICE

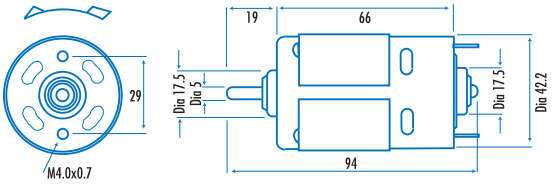
YM-2770



YM-2772
YM-2774



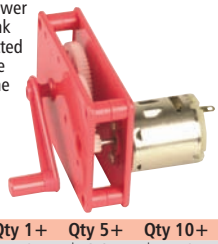
YM-2776



RPM	Volt	Cat	Qty 1+	Qty 5+	Qty 10+
11,800	12	YM-2770	$9.95	$8.75	$7.75
20,000	6	YM-2772	$14.95	$13.35	$11.70
18,800	12	YM-2774	$14.95	$13.35	$11.70
9,700	12	YM-2776	$14.95	$13.35	$11.70

Hand Crank Dynamo with Geared Motor

Here's a great gadget that will allow you to add Green power to any of your projects. What we have here is a hand crank dynamo, pre-assembled but easily modified to be retro-fitted to existing equipment or added to new projects. Crank the handle and the specially designed gear set will operate the motor and produce a DC voltage which can be used for a variety of low current uses (charging batteries, lights etc). Crank slowly and the voltage is low, crank harder and the voltage is higher. Made from plastic so it is easy to re-work to fit your projects.



Cat.	Qty 1+	Qty 5+	Qty 10+
MD-7000	$14.95	$13.35	$11.70

Motors, Servos & Solenoids

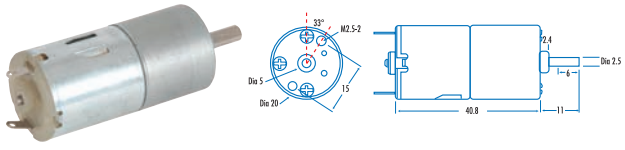
MOTORS (CONTINUED)

12V DC Reversible Gearhead Motors

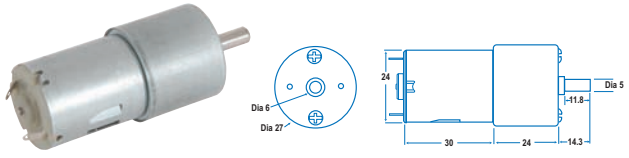
The motors work equally well in forward or reverse motion. More specifications available on our website.

	YG-2732	YG-2734	YG-2738
Torque/cm	2.1kg/cm	12.0kg/cm	50kg/cm @ 55RPM
Rated Voltage (Volts)	12.0V	12.0V	12.0V
Operating (Volts)	4.5 - 18Vmax	4.5 - 18Vmax	6 - 12Vmax
Current - no load (mA)	30mA	70mA	<450mA
Current - full load (mA)	390mA	1380mA	14A
Gear ratio	82:1	244:1	50:1
Shaft speed	70RPM	36RPM	160RPM

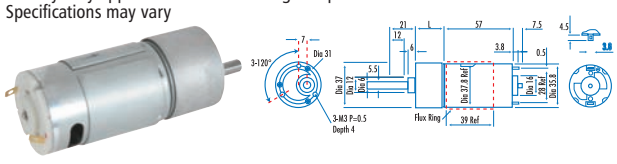
YG-2732
This compact unit will give a massive 2.1 kg/cm of torque at 70RPM.
Current draw rises to a modest 390mA.



YG-2734
Only slightly larger than the unit above, but with a massive increase in torque at 36RPM. Ideal for driving wheels or other traction devices.



YG-2738
For heavy duty applications. Massive 50kgs torque at 55RPM
• Specifications may vary



RPM	Volt	Cat	Qty 1+	Qty 5+	Qty 10+
70	12	YG-2732	$12.95	$11.35	$10.35
36	12	YG-2734	$19.95	$17.70	$15.70
160	12	YG-2738	$39.95	$35.90	$31.90

TECH TIP

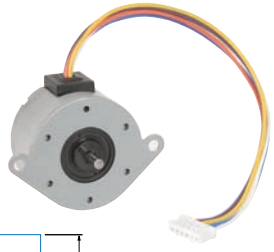
GEARBOX SPEEDS

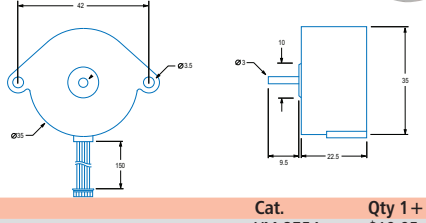
Note: All DC motors and motor gearboxes can change speed to a considerable amount by changing voltage within specified limits. This reduces need for special gear ratios for your application.

12VDC 48 Step / 7.5° Stepper Motor

Standard 48 step / 7.5° design, with flange mount 3.0mm hardened steel shaft. Suitable for object control, numerical control etc..

Specifications	
Rated voltage	12VDC
Rated current	1.1A/phase
Phases	4
Steps per revolution	48
Stepping angle	7.5°
Drive method	Unipolar chopper drive
Resistance per winding	20 ohms
Starting frequency	600pps (max)
Holding torque	700g/cm





1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
YM-2754	$19.95	$17.70	$15.70

SERVOS

Mini Servo 4.8V-6V

Mini sized servo perfect for remote control or robotics applications where size is at a premium.

Specifications	
Dimensions	35(L) x 16.9(W) x 32(H)mm
Weight	26g
Torque 4.8V	3.4kg/cm
Transit Time 4.8V	0.19 sec/60°
Torque 6V	4.2kg/cm
Transit Time 6V	0.15 sec/60°

NEW LOWER PRICE

Cat.	Qty 1+	Qty 5+	Qty 10+
YM-2760	$17.95	$15.95	$14.35

Servo Motor - Standard 6V with Metal Gear - 13kg

These metal gear servos are an excellent replacement for the standard servos commonly used in all 1:10 and many 1:18 scale remote control cars, or for use in any number of robotics applications. They feature digital control and super-tough metal gear construction with very high torque and super-quick rotational speeds. Perfect for the steering servo on an off-road truck or buggy where precise control and strength are needed.

- High speed and high torque digital servos
- Dual ball bearing
- Metal gears for maximum strength and durability
- Operating Voltage: 4.8-7.2V
- Connector wire: 32cm
- Includes control horns and screw set
- Weight: 55g
- 40.7 x 19.7 x 42.9mm (standard servo size)

NEW LOWER PRICE

OPERATING SPEED 4.8V: 0.25 SEC/60° Cat. YM-2763
OPERATING SPEED 4.8V: 0.20 SEC/60° Cat. YM-2765

	Cat.	Qty 1+	Qty 5+	Qty 10+
Torque 4.8V 13kg/cm	YM-2763	$29.95	$26.90	$23.70
Torque 4.8V 11kg/cm	YM-2765	$29.95	$26.90	$23.70

Heavy Duty Servo 4.8V-6V

A heavy duty servo which won't make a heavy duty dent in your wallet. Features include ball bearing, high torque and quick transit time.

Specifications	
Dimensions	54.4(L) x 26.5(W) x 51.5(H)mm
Weight	110g
Torque 4.8V	10kg/cm
Transit time 4.8V	0.25 sec/60°
Torque 6V	13kg/cm
Transit time 6V	0.20 sec/60°

TECH TIP!
13kg Torque

Cat.	Qty 1+	Qty 5+	Qty 10+
YM-2766	$29.95	$26.90	$23.70

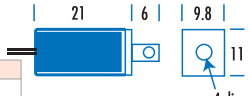
SOLENOIDS

Range of DC & AC solenoids and actuators. Made to our factory specifications. You can safely design them in knowing that they will be available over the long term. Generous quantity discounts. See website for datasheets.

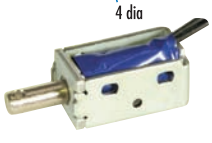
MORE INFO WEB

Ultra Miniature 12V

Small square frame unit, Pull type.



Specifications	
Coil resistance	131Ω
	10 watt (max)
Pulling force	20 - 160g (25% duty cycle)
Stroke	0.5 - 4.0mm (25% duty cycle)
Total weight	10g
Plunger weight	2g

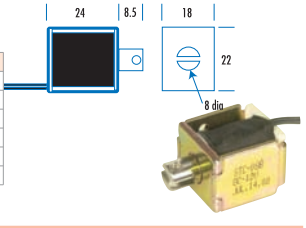


Full data supplied with unit

Cat.	Qty 1+	Qty 5+	Qty 10+
SS-0900	$9.95	$8.75	$7.75

Miniature 12V

Square frame unit, Pull type.



Specifications	
Coil resistance	58Ω
	25 watt (max)
Pulling force	100- 600g (25% duty cycle)
Stroke	1.0 - 5.5mm (25% duty cycle)
Total weight	46g
Plunger weight	9g

Full data supplied with unit

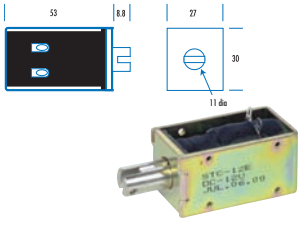
Cat.	Qty 1+	Qty 5+	Qty 10+
SS-0901	$14.95	$13.35	$11.70

SOLENOIDS (CONTINUED)

Standard 12V

Regular size square frame unit,
Pull type, solder tip.

Specifications	
Coil resistance	24Ω
	50 watt (max)
Pulling force	200g-2kg (25% duty cycle)
Stroke	2.0 - 12mm (25% duty cycle)
Total weight	205g
Plunger weight	39g



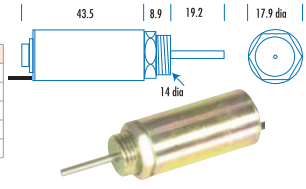
Full data supplied with unit

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SS-0902	$24.95	$22.35	$19.70

Tubular 12V

Compact size, Push type.

Specifications	
Coil resistance	25.6Ω
	20 watt @ 25% duty cycle
Pulling force	220 - 940g (25% duty cycle)
Stroke	1.0 - 6.0mm (25% duty cycle)
Total weight	81g



Full data supplied with unit

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SS-0903	$24.95	$22.35	$19.70

240VAC

Standard steel lamination design Push-pull type.
Rated for continuous use.

Specifications	
Pull force	9.8N (1.0kg)
Voltage	240VAC 50Hz/60Hz
Stroke	15mm fixed
Total weight	362g

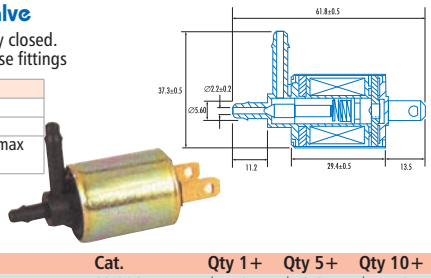
Standard saddle - type actuator
Full data supplied with unit

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SS-0904	$24.95	$22.35	$19.70

12VDC Solenoid Valve

Air valve solenoid, normally closed.
Standard 1/4" Barb type hose fittings

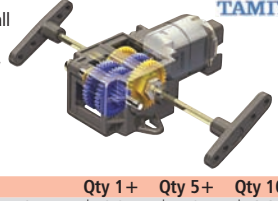
Specifications	
Operating voltage	12VDC
Operating current	350mA
Air Leakage	1cc/min max at 4 PSI



	Cat.	Qty 1+	Qty 5+	Qty 10+
	SS-0905	$14.95	$13.35	$11.70

TAMIYA POWER TRANSMISSION COMPONENTS

Single Motor 4 Speed Gearbox / Axle Assembly

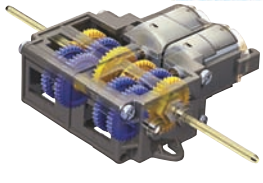


This brand-new Tamiya product features an all plastic moulded gearbox and motor casing. Included is a FA-30 type 3 volt electric motor, axle with 2 crank arm and tube of grease.

These gear ratios are user selectable:
12.7:1 114.7:1
38.2:1 344.2:1

	Cat.	Qty 1+	Qty 5+	Qty 10+
Single	YG-2740	$16.95	$14.95	$13.35

Double Motor Independent 4 Speed Gearbox / Axle Assembly

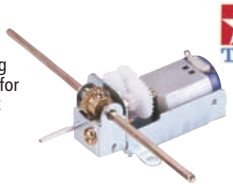


Basically a double version of the unit above. Each motor can be separately driven and therefore when wheels are connected could rotate on the spot. Each gearbox is independent so it is possible to set different gear ratios for each box. Includes 2 x FA-30 type 3 volt motors.

The following gear ratios are user selectable:
12.7:1 38.2:1
114.7:1 344.2:1

	Cat.	Qty 1+	Qty 5+	Qty 10+
Double	YG-2741	$19.95	$17.70	$15.70

2 - Shaft Universal Motor / Gearbox Set



This gearbox has a main output shaft exiting either side of the gearbox (to drive wheels, for example) and another single-ended shaft at 90° to the former. The gear set can be configured to give 3 set speeds.

- Metal chassis, includes motor.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Universal	YG-2742	$16.95	$14.95	$13.35

MECHANICAL COMPONENTS FOR DRIVE TRAINS

Pulley Set

This set would typically be used to transfer power in small energy systems. Set in includes 2 x each 50 & 25mm pulleys, 2 x 11mm pulleys, bushings, screws, nuts and 1 metre of rubber drive band. This type of system will absorb transmission shock.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Large	YG-2869	$9.95	$8.75	$7.75

6.35mm (1/4") Shaft Coupler

Sturdy solid steel sleeve with black Japanned finish, this device connects 2 x axial shafts together that are closely aligned by hex drive set screws.

- 19mm (3/4") long x 12.7mm (1/2")dia

	Cat.	Qty 1+	Qty 5+	Qty 10+
	YG-2790	$6.95	$6.25	$5.50

Aluminium Hub with Set Screws

This device will accept a 6.35mm (1/4") shaft, set screw fixed, and connect to the flat face of a gear, typically the flat side of the larger 48 pitch gears.

- Coupling from the gear to the hub by 4 x set screws provided. This enables a motor to be securely fastened to a driving gear.
- Hub 7/8" (22.5mm) dia.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	YG-2784	$6.95	$6.25	$5.50

POWER TRANSMISSION COMPONENTS

GERMAN MADE
These precision engineered components are a delight to play with. They offer solutions to small power transmission problems. We make no apologies for the price because well, they are German and they are magnificent quality.

Solid Shaft Couplers (Female)

Machining from solid brass stock – 16mm long, 12mm diameter. Type I will connect 2 shafts on a common axis. Type II will reduce from 6.0 diameter to 4.0 diameter.

- Shaft fixed with grub screws.

TYPE I Cat. YG-2600
TYPE II Cat. YG-2602

YG-2600

YG-2602

	Cat.	Qty 1+	Qty 5+	Qty 10+
Type I	YG-2600	$7.95	$6.95	$6.25
Type II	YG-2602	$7.95	$6.95	$6.25

Right Angle Shaft Couplers (Male)

Basically a right-angle cast housing with 45 degrees nylon bevel gears permanently coupled. One shaft is enclosed with a panel-mount style threaded bush (similar to a potentiometer mount) which is 10mm long.

- Two mounting nuts and lock washer provided.
- All metal parts are nickel plated.
- Each shaft is 10mm long.

	Shaft	Cat.	Qty 1+
Type II	2 x 4mm	YG-2612	$39.95

Double - Stage Classic Style Universal Joint (Female)

Similar to YG-2606 but with 2 brass couplings set inside a nylon spider. It will couple up to 90 degrees but it will wear quickly at high speed at this angle.

- Works best between 80° and 45°
- Grubscrews fixing 6.0mm diameter shafts

	Cat.	Qty 1+
	YG-2608	$39.95

Gears & Kits

POWER TRANSMISSION COMPONENTS (CONTINUED)

All-Metal Universal Joint (Trunnion Style) Female 6.0 Dia.

This is a low torque coupler that will couple offset shafts by up to 2mm and 15° off-angle. Shafts are clamped by collet-type fixing i.e. a nut compresses a slotted bush compressing it onto the 6.0mm diameter shafts.

NEW LOWER PRICE

- Nickel plated

	Cat.	Qty 1+	Qty 5+	Qty 10+
	YG-2604	$19.95	$17.70	$15.70

Gear Set & Spur Gear Set

Gear set contains one pinion gear and two different sizes of radio gears. Spur gear set contains three different spur gears.

YG-2630

YG-2632

	Cat.	Qty 1+	Qty 5+	Qty 10+
Gear Set	YG-2630	$8.50	$7.50	$6.75
Spur Set	YG-2632	$6.95	$6.25	$5.50

Worm Drive Set

This set consists of a worm gear 24mm long x 12mm dia with an 8 turn worm screw.The worm has a 2.8mm axle hole which could probably be carefully drilled out to a larger diameter. The spur gear is 1/4" (6.35 wide) and 1 & 5/8" (41.2mm) diameter with a number of regular pitch-concentric 2.8mm holes across the face of the gear including one dead centre. It would be drilled out to accommodate a larger shaft. This gear has 40 teeth. Both are moulded in an engineering grade plastic.

DIY

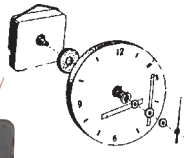
	Cat.	Qty 1+	Qty 5+	Qty 10+
	YG-2736	$7.95	$6.95	$6.25

CLOCK MAKING

Quartz Clock Movement

MAKE A CUSTOM CLOCK OR REPAIR AN OLD ONE

This is a standard hour/minute/sweep second movement found in almost all electric clocks worldwide. Very reliable. Standard nut bushing mount. We have sold 10's of thousands of these and, as far as we can tell, not one has come back.

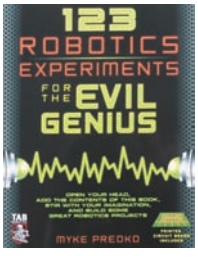


- Very compact 56 x 56 x 15mm
- Self starting one second stepping motor
- Uses 1 x AA battery that lasts 1 year
- ±15 second/month accuracy
- Supplied with three sets of hands
- Shaft length 19mm, diam. 7.5mm
- Includes sweep second hand.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0100	$12.95	$11.35	$10.35

MECHATRONICS & ROBOTICS - BOOKS

123 Robotics Experiments For The Evil Genius



Frankly, the "Evil Genius" series of books started a few years ago and the publisher realised that it grabbed the attention of many. We reviewed one early title and were horrified at the VERY DANGEROUS projects described therein. This book, however, is an absolute delight. Written by the brilliant Myke Predko, the book starts with the basic concepts of robotics. In many ways it starts at "Too Simple". We mean this because Myke describes a couple of silly projects to start, i.e. a "doll" made out of the cardboard tubes from toilet paper rolls. He gets into gear quickly, however. (Start reading from page 15 and have an inches metric conversion table handy!) The projects & concept explanations come at a fast pace. You will learn about all the concepts needed for basic robotics technology & have all of the components described to you as well. You will get the basics at a bit of a rush - so that you can get to real robotic control - through the BASIC Stamp microcontroller. Before you know it, you will have serious knowledge of robotics. Indeed this book even includes a double-sided plated-through PCB that you will need for many projects. A board such as this could cost almost as much as the book itself if sold separately. So let's be tough & call the book 121 Robotics Projects. Either way it is THE book for someone who wants to get into this fascinating technology.

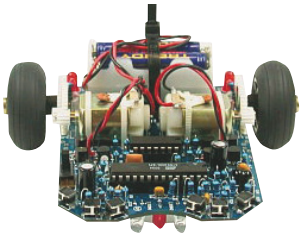
BOOK AVAILABLE

- 355 pages
- Softcover 275(H) x 215(W)mm

	Cat.	Qty 1+
	BM-7104	$29.95

ASURO & ROBOT KIT

Asuro Programmable Robot Kit



Asuro is a kit developed at the German Centre for Air and Space Travel for an autonomous multi-sensor robot. In addition to six collision sensors and an optical unit for following a line, Asuro has two odometers and several display elements. The supplied duplex infrared interface permits wireless programming, as well as a remote control with a PC. The "brain" of the robot is a RISC processor that also permits the processing of complex programs. Programming is carried out in C, where predefined functions can be accessed to actuate the two motors, the sensors and displays. A detailed instruction manual describes the assembly process and the installation of the software as well as step-by-step instructions on programming the Asuro using numerous examples. Asuro is ideal for hobbyists, school and student projects, schools, training in the electrical engineering and mechatronics fields as well as university courses.

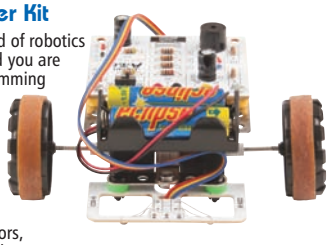
This is not a kit for the faint-hearted! Some soldering required.

DIY

- Programming required - suitable for 14+

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KR-3120	$79.95	$71.95	$63.95

PC Programmable Line Tracer Kit



An educational introduction to the world of robotics and programming. Assemble the kit and you are able to use it in two main ways, programming mode or line tracing mode. With the supplied software you are able to program instructions into the robot to navigate its way across the floor. In line tracing mode, simply draw a line on some paper with a thick black marker and the robot will follow the course. It accomplishes this with two optical sensors, somewhat similar to a common garden bug.

NEW LOWER PRICE DIY

- Assembly time: 2 hours
- Requires: Box cutters, phillips head screwdriver (no.2 size), long nose pliers (TH-1887)
- Requires 2 x AA batteries
- Software is compatible with Windows XP, Vista, and Windows 7 (Vista users may need to run the software in WinXP Service pack 2 compatibility mode)
- Recommended for ages 12+
- Dimensions: 120(L) x 64(W) x 55(H)mm

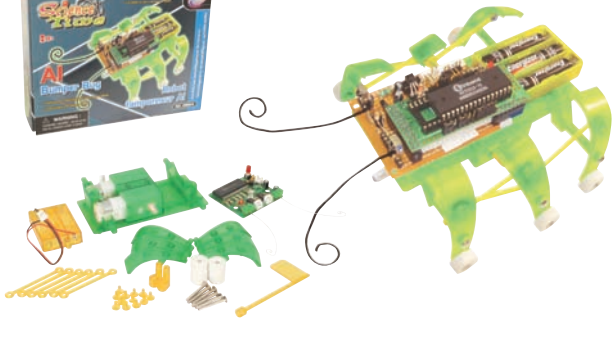
	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8906	$29.95	$26.90	$23.70

Artificial Intelligence (AI) Bumper Bug

Build a big green 6 legged bug with some rudimentary artificial intelligence. The bug is capable of detecting when it bumps a wall and can alter its course accordingly thanks to it's wall sensing eyes.

WATCH VIDEO DIY

- Assembly time: 3 hours
- Suitable for ages 8+
- 3 x AAA batteries required
- Dimensions: 203(W) x 70(L) x 151(H)mm



	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8956	$24.95	$22.35	$19.70

Robot & Internal Combustion Engine Kits

ROBOTIC CONSTRUCTION KITS

3 in 1 All Terrain Tracked Robot

There are a lot of parts to assemble in this kit, including the hard-wire remote control. You do, however end up with a fantastic piece of robotic gear. It is primarily a terrestrial 6 track (i.e. 3 separate tractor-crawlers each side) unit. The crawlers can be reconfigured to operate as grippers, or even as a forklift type mechanism. You will need lots of time to put this thing together, but it will be a pleasure as the 50 page instruction manual is superb with dozens of good old-fashioned line drawings, which are still the best for clarity. There is very little electronics (indeed none really) but a tremendous amount of mechanical assembly. Electric motors are included.

This kit could form the basis of a sophisticated robotic platform with the addition of feedback systems, much of which is in the Jaycar catalogue.

- It would make a fabulous gift for a very bright 13+ year old
- Batteries AA x 4 are extra
- Carton dimensions 40(W) x 30(D) x 90(L)mm

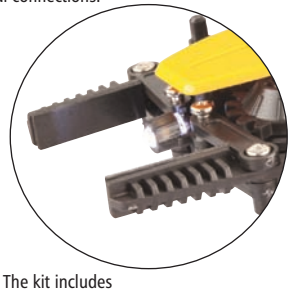
	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8918	$49.95	$44.90	$39.90

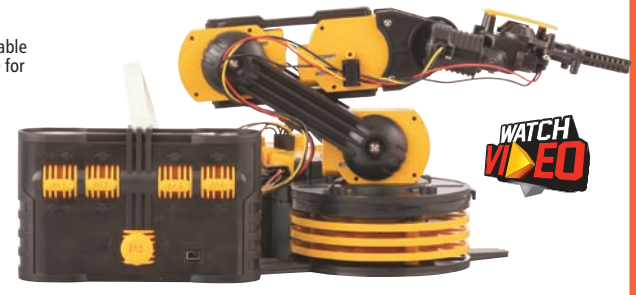
Robot Arm Kit with Controller

This arm is a must for budding robot enthusiasts and operates just like the real thing. It is capable of 5 separate movements and can easily perform complex tasks. Individual control is available for opening and closing the illuminated gripper plus control of wrist, shoulder, elbow and base rotation. The arm is supplied as a kit of parts and makes an excellent project for anyone interested in robotic construction and basic electrical connections.

- Suitable for ages 12+

Specifications	
Max lift capacity	100g
Gripper opening	43mm
Maximum reach	320mm
Wrist movement	120°
Elbow movement	300°
Shoulder movement	180°
Base rotation	270°
Requires	4 x D cells
Base dimensions	225(L) x 160(W) x 40(H)mm





USB INTERFACE KIT FOR KJ-8916

Add computer control via USB to your Robotic Arm. The kit includes everything you need - interface cable, pre-built PCB, enclosure and software for controlling function. You can use a keyboard or mouse to have real-time control of the robotic arm, or you can program, edit and load individual functions and movements, just like a real industrial robot. The commands are saved just like a normal computer file to be loaded and used later.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Robot Arm with Controller	KJ-8916	$49.95	$44.90	$39.90
USB Interface Kit	KJ-8917	$34.95	$31.45	$27.90

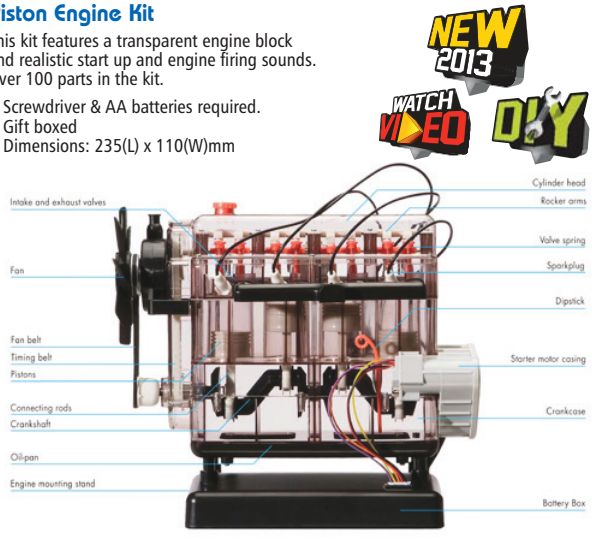
REALISTIC INTERNAL COMBUSTION ENGINE MODEL KITS

We are proud to announce the introduction of these detailed engineering models. They are superbly detailed and a delight to assemble.

Piston Engine Kit

This kit features a transparent engine block and realistic start up and engine firing sounds. Over 100 parts in the kit.

- Screwdriver & AA batteries required.
- Gift boxed
- Dimensions: 235(L) x 110(W)mm



	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8903	$49.95	$44.90	$39.90

Jet Engine Kit

This kit features transparent housing which shows in detail the inner workings of an airliner jet engine. The final assembly reveals the engine mounted in a pod under an aircraft wing, with a plinth mounted working throttle control also housing batteries etc. This is a delightful model kit and quite generous in size. It actually spins!

- Requires AA batteries and a screwdriver to assemble
- Contains 50 component parts
- Gift boxed
- Dimensions: 275(L) x 150(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8904	$49.95	$44.90	$39.90

Robot & Green Power Kits

Interest in electro-mechanical kits is absolutely exploding. This has been due to a number of factors - the popularity of LEGO "Mind-storms", fantastic new IC¹s developed for Apple® products, such as miniature accelerometers, mobile 'phone technology & short range radio technology such as Bluetooth® & WiFi. Not to mention low power microprocessor technology! And the Arduino phenomenon of course.

Across these pages you will find a fantastic range of kit build products to stimulate the young mind. Enjoy making your selection!

Remote Controlled Tank Kit

First developed to break stalemates that resulted from trench warfare in world war 1, tanks have become the mainstay of military forces throughout the world. To this day they are an invaluable tool in front line fighting. Educate the next generation with this excellent little kit. Components include the chassis, 2 x tracks, a hull, turret, 2 gun tubes, one gun support and all the wheels. Assemble the pieces and you will have a fully functioning tank ready to roll out!

- Assembly time: 10 - 20mins
- Suitable for ages: 8+
- Requires 3 x AAA batteries for tank
- Requires 3 x AAA batteries for remote control unit
- Dimensions: 105(W) x 170(L) x 125(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8950	$29.95	$26.90	$23.70

Remote Control Robot Kit

The future of little robots scurrying around the house completing menial house chores has yet to arrive. In the meantime, you can construct one yourself! This little robot kit includes a collection of components ready to assemble on the kitchen table. Once complete you will have a fully remote controlled robot unit.

- Assembly time: 10 - 20mins
- Suitable for ages: 8+
- Requires 3 x AAA batteries for main unit
- Requires 3 x AAA batteries for remote control
- Dimensions: 125(H)mm approx

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8952	$29.95	$26.90	$23.70

LEARN ABOUT GREEN POWER

6-in-1 Solar Educational Kit

A brilliant kit for any junior eco-scientist. You can build any one of six different projects from the parts in the kit, then make them work by solar power. No tools, soldering or glue required. All the parts snap together with spring terminals for the wiring. The instructions are excellent with extremely clear and concise illustrations detailing every step. The finished projects are solar powered, but can also be powered by the light from a household 50W halogen light.

NOTE! THOUSANDS SOLD

Projects:
- Windmill
- Car
- Dog
- Plane
- Airboat
- Revolving Plane
- Suitable for ages 10+

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8926	$14.95	$13.35	$11.70

6 In 1 Solar Educational Robot Kit

A hands on experience in the world of solar power. This kit includes all the parts needed to construct up to six different projects. Choose between a robot, helicopter, plane, windmill, water skies or even a three wheeler! Don't even worry about screws, everything snaps together for easy assembly and its all solar powered so no batteries are required. For the best results, use it in direct sunlight. For cloudy days use a 50W halogen light.

- Suitable for ages 10+

Specifications	
Dimensions (Approx)	
Windmill	185 x 185 x 190mm
Helicopter	234mm
Water skier	140 x 75 x 95mm
Three wheeler	65 x 50 x 60mm
Robot	50 x 85 x 45mm
Plane	185 x 185 x 130mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8936	$14.95	$13.35	$11.70

7-in-1 Solar Rechargeable Station Kit

A fantastic solar science kit that teaches children the different ways of powering and charging a machine. The kit comes with all the snap together plastic parts required (no need for glue), a solar panel, micro rechargeable battery and all the other accessories. Initially the kit is assembled into a recharging station but can then be transformed into a truck. You can also build concept car, concept racer, dump truck, bulldozer, or solar powered car. Includes stickers to add some flare to your vehicles. May require the use of a side cutter, scissors and 3 x AAA batteries

- Assembly time: 2 hours
- Recommended for ages 8+
- Charging Truck dimensions: 105(L) x 55(W) x 41(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8964	$19.95	$17.70	$15.70

Wind Powered Eco-biker

This cute little kit assembles up into a wind turbine powered model bicycle rider. The wind turbine operates the riders arms, legs and body. If the wind is strong enough it generates enough electricity to run the bikes LED headlight! The assembled unit is designed to mount in the neck of a soft-drink bottle or - appropriately - on the handlebars of a bicycle. (Mounting parts included.)

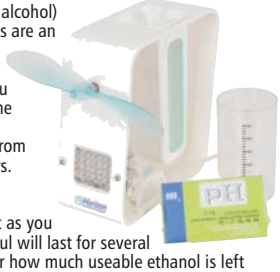
- Suitable for ages 8+
- Total rider/assembly: 125(H) x 100(L) x 90(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8923	$9.95	$8.75	$7.75

Ethanol Bio Fuel Energy Kit

ETHANOL

Build your own desk fan and run it on your own bio-fuel. Generate your own electricity from ethanol (ethyl alcohol) using Direct Ethanol Fuel Cell technology. Bio fuels are an alternative to fossil fuels as they are generated from fermented plant matter, not from long-dead critters and plants. The kit contains everything you need to get your alternative fuel experiment off the ground, except the ethanol itself: you could use a solution of denatured alcohol which is available from pharmacies, hardware stores or chemical suppliers. Measuring cylinder is included for mixing up the required solution. If you're really keen, you could ferment your own, but check that this is legal first as you would be manufacturing alcohol. One small tankful will last for several days, and the kit includes testing strips to monitor how much useable ethanol is left in the tank. So once you've made the fuel you can put it to work running the desktop fan you assemble in the kit. The kit includes ethanol storage tank, tubing, purging valve, supporting base, electric motor, wiring with crocodile clips, fan blades, Ethanol solution mixing container and pH measuring strips.



- Suitable for ages 12+
- Adult supervision recommended

TECH TIP! Will work with wine as well!

1 YEAR WARRANTY

	Cat.	Qty 1+
	KT-2550	$50.00

LEARN ABOUT GREEN POWER (CONTINUED)

Rechargeable Mini Solar RC Car

An educational and fun way to teach your children the benefits of solar power and renewable energy sources. This neat little remote control car runs on solar power! It has a solar panel on the roof of the car charging the on-board rechargeable batteries. It also has a charge dock station for the remote control. Despite being green, the car is very zippy thanks to its lightweight design. A full functional RC car, it has forward, reverse, left and right controls. Also comes with a USB charger for those cloudy and rainy days.

- Rechargeable battery
- USB charging cable included
- Suitable for ages 8+
- Dimensions: 240(L)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3699	$24.95	$22.35	$19.70

Solar Formula 1 Car Kit

Build your own solar F1 car and explore the world of solar power. Easy to assemble mini Formula 1 car with built-in electric motor. No glue required - all the pieces simply snap together. The solar cell provides the power and it will run from sunlight or a 50W halogen globe.

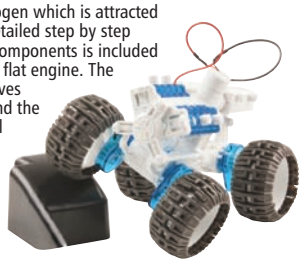
- Suitable for ages 10+
- Dimensions: 90(L)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3753	$12.95	$11.35	$10.35

Salt Water Fuel Cell Engine Car Kit

An entertaining educational kit demonstrating the concept of a salt powered automotive engine. It gives the next generation a look at alternative means of propelling cars of the future. It works with a combination of salt water and magnesium plates. When salt water is added it dissolves the magnesium to form hydrogen which is attracted to the cathode creating a flow of electrons. A detailed step by step assembly manual for connecting the myriad of components is included and the car engine can be configured as a V8 or flat engine. The cylinders also move up and down as the car moves forward. The finished vehicle is 4 wheel drive and the body will twist as it navigates its way over small pebbles and bumps. Watch a demonstration video on our website.
You may require the use of a side cutter and flat/phillips head screwdrivers.

- Assembly time: 3 hours
- Recommended for ages 8+
- Dimensions: 120(L) x 100(W) x 91(H)mm



Ramp not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8960	$19.95	$17.70	$15.70

Water Powered Vehicle Kit

Build up to 13 different water powered vehicles and watch them move! This kit demonstrates two different ways of powering vehicles with water, a pump based water recycling system and ones using a simple water jet. The former uses a pump and water tank to create a hydro pneumatic system where water pressure creates energy to move a gear. The water jet simply uses a build up and release of pressure to propel the vehicle forward. A fully illustrated 48 page instruction manual is included.

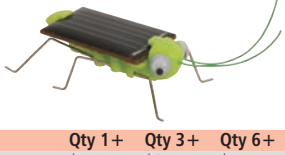
- Hydro pneumatic vehicles: Car, antique car, locator car, excavator, truck
- Water jet engine: Fork lift, propeller plane, vintage car, helicopter, dragster, rescue vehicle, excavator, scooter
- Assembly time per vehicle: Approx 30 minutes.
- Recommended for ages 8+
- Dimensions: 370(W) x 290(H) x 80(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8913	$39.95	$35.90	$31.90

Solar Powered Grasshopper Kit

Are your children fascinated with insects? This mini solar powered grasshopper is easy to assemble and will keep them occupied for hours. Runs from sunlight or by a 50W halogen bulb. Small enough to fit in the palm of their hand!

- Suitable for ages 8+
- Dimensions: Approx 40mm long



	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3751	$9.95	$8.75	$7.75

Wind & Solar Powered RC Cars

Toy cars are always on young boys' birthday or Christmas wish lists. Oblige them with one of these mini remote controlled cars that will surely entertain but also educate curious minds about the concept of wind and solar power. The kits are very simple to build and come with a manual that provides construction details and explains how alternative energy can generate electricity.

- Car dimensions: 60(L) x 30(W)mm

WIND POWERED RC CAR
Cat KJ-8838

SOLAR POWERED RC CAR
Cat KJ-8839

	Cat.	Qty 1+
Wind Powered Car	KJ-8838	$14.95
Solar Powered Car	KJ-8839	$14.95

Solar Educational Kit

Experiment with solar energy - the energy source of the future. Our solar educational kit is designed to let you build your own solar models. The kit comes complete with:

- Solar cell module
- Solar energy booklet explaining the why & hows of solar energy
- Small DC motor
- Screws and nuts
- Wire with motor clips
- Colour spinner discs
- Paper aeroplane and bird models
- Plastic turntables with 4 sizes, 5/8", 1", 1.5" and 2"
- Plastic fan spinner
- Suitable for ages 8+

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-6690	$16.95	$14.95	$13.35

Deluxe Solar Educational Kit

A series of do-it-yourself experiments to acquire the basic knowledge of solar energy. Supplied with a solar panel which incorporates 3 x 1.5V cells for series or parallel connection.

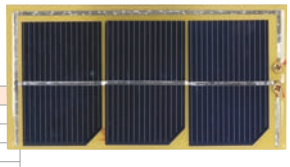
The kit comes complete with:

- Solar cell module with plastic stand
- Musical unit
- Plastic lamp
- Small DC motor with stand
- Wire with motor clips
- 4 jumper wires
- Nuts and plastic spanner
- Colour spinner discs
- Paper aeroplane and bird models
- Plastic turntables with 4 sizes, 5/8, 1, 1.5 and 2 inch
- Plastic fan spinner
- 14 page solar energy booklet explaining the why & hows of solar energy
- Suitable for ages 8+

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-6694	$29.95	$26.90	$23.70

Hobby Solar Module

Ideal for powering solar projects, hobbies, model solar cars and educational applications. 3 cells per module, rated at 1.5V.



Specifications	
Open circuit voltage	1.5V
Short circuit current	500mA
Dimensions	148(L) x 74(W)mm
Weight	33g

	Cat.	Qty 1+	Qty 2+	Qty 4+
	ZM-9012	$19.95	$18.70	$17.70

Mini Solar Bullet Train Kit

All aboard the solar bullet train! This kit is an excellent way to teach how solar power is used to drive a small motor. Perfect for train enthusiasts!

- Includes 18 parts, 4 screws, and 1 mini solar panel
- Suitable for ages 10+
- Dimensions: 205(L) x 155(W) x 45(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8929	$9.95	$8.75	$7.75

Microscope & Electrical Projects

MICROSCOPES

2MP USB Digital Microscope with 200x Zoom

NEW 2013

An essential tool for technicians, jewellers, or hobby use. Plug this microscope into a computer then you magnify objects up to 200x for viewing on the screen. Video and images can be captured and saved onto your computer for later referral.

Features 6 bright white LEDs to help with illumination. For finding that bent pin on a motherboard, or for simply studying the microscopic world of nature this an excellent product for practical and fun applications.

Specifications	
Image Sensor	2.0MP
Video Capture Resolution	640x480
Image Capture Resolution	1600x1200,1280x1024, 640x480,320x240
Colour	24-bit RGB
Lens	Dual Axis 50x & 200x Microscope
Focus Range	Manual focus from 10mm onwards
Frame range	Max 30fps
Magnification Ratio	50x to 200x
Video Format	AVI
White Balance	Auto
Exposure	Auto
Light Source	6 x White LEDs with control wheel
Interface	USB 2.0
Operating System	Windows
Microscope Dimensions	110(L) x 33(Dia.)mm

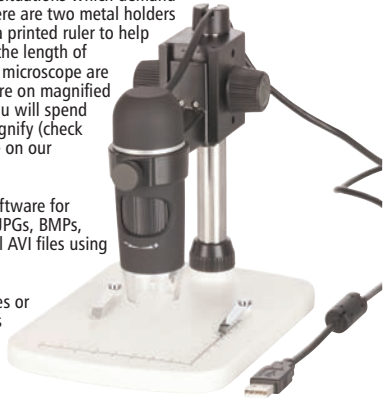
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	QC-3197	$79.95	$71.95	$63.95

5MP USB 2.0 Digital Microscope with Professional Stand

NEW 2013

A USB microscope with a simple but incredibly useful stand that allows you to make fine adjustments to the vertical height of the microscope and swivel the scope arm around a 360 degree range. This permits a greater level of viewing accuracy and stability. The microscope can be easily removed for the stand for situations which demand it. On either side of the stand there are two metal holders to lock your object in place and a printed ruler to help you get an approximate feel for the length of objects. The optics built into this microscope are excellent. The sharpness of texture on magnified objects is incredible to look at you will spend hours searching for things to magnify (check out a full resolution 5MP capture on our website).



It comes with a great piece of software for capturing 5MP (2592x1944) res JPGs, BMPs, TIFs or PNGs and 1280x960 pixel AVI files using .

Excellent for educational purposes or a myriad of practical applications such as technicians, jewellers, laboratory work, and much more.

Specifications	
Image sensor	5MP
Focus range	Manual focus from 10mm to 150mm
Snap shot	Button or software
Shutter speed	1 sec to 1/1000 sec
Still image resolution	2592x1944, 2048x1536, 1600x1200, 1280x960 pixels
Video capture resolution	1280x960
Flicker control	50Hz/60Hz
Light source	8 x LEDs with adjustable brightness
Magnification ratio	10x, 300x (at 5MP res)
Power source	USB
Compatible with	WinXP/Vista/7/8, Mac 10.6-10.8
Bundled software	Microcapture Pro with measurement function
Dimensions	Microscope: 110(L) x 33(Dia)mm, Stand: 165(H) x 165(L) x118(W)mm

1 YEAR WARRANTY

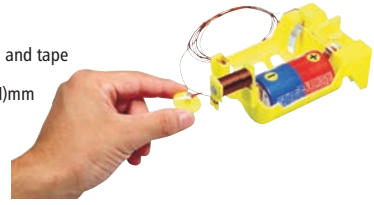
	Cat.	Qty 1+	Qty 4+	Qty 10+
	QC-3199	$129.00	$115.95	$102.95

ELECTRONIC & ELECTRICAL PROJECTS FOR KIDS

Principles of Electric Current Experiment Kit

A series of experiments with instructions to learn the common principles of electric current and magnetism. Check the magnetic poles of each coil with the compass, use some paper clips, the magnet and enamelled wire to create a spinning motor, or check the flow of current in the circuit by switching the battery thus inverting the current and magnetic field.

- Assembly time: 30 minutes
- Requires 2 x D batteries, scissors, and tape
- Recommended for ages 8+
- Dimensions: 99(L) x 70(W) x 45(H)mm



	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8901	$9.95	$8.75	$7.75

Mini Electronic Experiment Motor Kit

Construct a simple little electric motor for a clear understanding of how the technology works. All the main components to create a working DC motor are included such as the armature, commutator, field poles, etc. When current is applied to the coil in the electromagnetic field the coil will turn. The magnetic field can be produced with either the supplied ferrite magnet or the electromagnet. Everything can be mounted onto the supplied plastic enclosure.

WATCH VIDEO

- Assembly time: 30 minutes
- Recommended for ages 8+
- Requires 3VDC-6VDC power source
- Dimensions: 132(L) x 104(W) x 90(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8902	$19.95	$17.70	$15.70

Educational FM Radio Kit for Kids

This kit allows kids to build their very own FM radio! Inside the kit are all the components required to assemble a working FM radio receiver and no soldering is required. Just coil the connecting wires around each connection point and away you go. Once completed they can sit back and marvel at their creation and listen to their favourite channel.

WATCH VIDEO

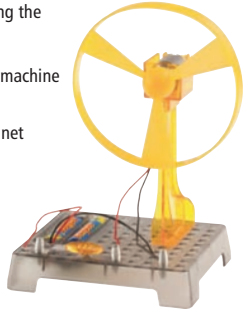
- Requires the use of long-nosed pliers (TH-1877) and small wire cutters (TH-1897) or similar tools
- Assembly time: 2 hours
- Requires 2 x AA batteries
- Recommended for ages 8+
- Dimensions: 220(L) x 179(W) x 71(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8915	$29.95	$26.90	$23.70

12 in 1 Electrical Experiment Kit

WATCH VIDEO

12 different experiments to construct that demonstrate various electronic principles. Learn about static electricity, electric motors, resistors, diodes, lights, solar power and more. Kit included a manual with excellent information describing the theory and history associated with each experiment.



Activities:
- Static Electricity
- Conductors and insulators
- Make a fan
- Resistor
- Diode
- Make a light
- Make a Morse code machine
- Light control alarm
- Make a bell
- Make an electromagnet
- Make a motor
- Solar power cell

- Assembly time for each experiment: Approximately 10 mins
- Requires 2 x AA batteries
- Recommended for ages 8+
- Base dimensions: 120(L) x 99(W) x 23(H)mm

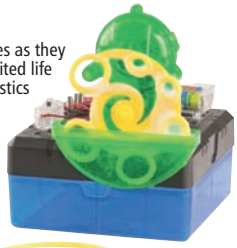
	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8919	$24.95	$22.35	$19.70

SCIENCE PROJECT KIT

Educational Science Kits

A collection of 5 do-it-yourself educational science kits that provide useful knowledge on simple physics concepts. Learn about the physical nature of bubbles, rotary motion, energy conversion, electric circuits and more!
- Box size: 140(L) x 140(W) x 70(H)mm
- Recommended for ages 8+

BUBBLE BLOWING EDUCATIONAL SCIENCE KIT
Hollow spheres of iridescence! Bubbles amaze all ages as they majestically drift through the air uncaring of their limited life spans. This kit will educate on the physical characteristics of bubbles such as their micron thick surfaces, colour changing properties etc. Science aside, bubbles truly are a wonder of the physical world.



- 2 x AA batteries required
- Assembly time: 30 mins

Cat. KJ-8942

FLYING DISC EDUCATIONAL SCIENCE KIT
Demonstrates the physical concept of rotary motion and how it can be used to lift an object into the air. On a larger scale in the real world, this concept enables helicopter flight. In this kit a small plastic disc resembling the blade of a helicopter will become airborne once enough rotary speed is applied to it.

- 2 x AA batteries required
- Assembly time: 15 mins

Cat. KJ-8944

ELECTRONIC CIRCUIT MAZE CHALLENGE EDUCATIONAL SCIENCE KIT
Some basic electronic principles demonstrated in a fun way. Assemble the kit and try to guide the metal hook around the wire maze. If the hook touches the wire it will cause electric current to flow, thus triggering a bell to ring.

- 2 x AA batteries required
- Assembly time: 15 mins

Cat. KJ-8946

AIM & SHOOT EDUCATIONAL SCIENCE KIT
Learn about energy conversion with this fun little kit. It's a basketball backboard plus hoop with a little launcher to shoot the basketball into the hoop. The motors rotational energy is converted to left/right energy so the basketball hoop sways back and forth. Launch the little ball and see if you can get it in the hoop.

- 1 x AA battery required
- Assembly time: 15 mins

Cat. KJ-8948

AMAZING SOCCER FEVER EDUCATIONAL SCIENCE KIT
An infinite number of variables can affect the outcome of a soccer game. Feet must make perfect contact with the ball at the right velocity and angle to score goals. Wind resistance can affect the flight of the ball, friction with the ground, etc. This kit consists of a goal keeper which guards the goal and a little plastic foot to kick the ball. See if you can make it past the keeper!

- 1 x AA battery required
- Assembly time: 15 mins

Cat. KJ-8949

	Cat.	Qty 1+	Qty 3+	Qty 6+
Bubble Blowing	KJ-8942	$9.95	$8.75	$7.75
Flying Disc	KJ-8944	$9.95	$8.75	$7.75
Maze Challenge	KJ-8946	$9.95	$8.75	$7.75
Aim & Shoot	KJ-8948	$9.95	$8.75	$7.75
Soccer Fever	KJ-8949	$9.95	$8.75	$7.75

FIND OUT MORE IN STORE

Our staff can offer friendly and expert advice, from product information to electronics solutions; we're here to help.

Hovercraft Experiment Kit

Hovercraft work by filling a 'cushion' with air, this air is then released under the skirting of the cushion once a certain level of pressure is reached which creates lift allowing the craft to fulfil its namesake, and hover. This kit is a fun practical way to demonstrate this technology. Glue the cardboard pieces together, install the motor and other components and you will have a fully functional hovercraft.

- Assembly time: 2 hours
- Not recommended for use on water
- Requires 2 x AA batteries
- Recommended for ages 8+
- Dimensions: 300(L) x 245(W) x 95(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8909	$14.95	$13.35	$11.70

Balloon Powered Helicopter Propulsion Kit

This simple little kit demonstrates how helicopter flight is possible. Assemble the blades, blow up the balloon then attach to the blade axle and the air from the balloon will pass through a passageway of each blade causing them to spin. This rotational motion, coupled with the angled blade design allows for enough downward force for the kit to fly.

- Assembly time: 43 seconds
- Recommended for ages 5+
- Dimensions: 260(Dia) x 30(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	KJ-8908	$4.95	$4.45	$3.90

A BIT OF FUN

Automated Electronic Bugs

Keep your kids entertained for hours with these small robotic creatures that fit into the palm of their hands! These autonomous, high speed creatures mimic the behavior of an insect. They will run and scurry around on an even floor, table and flat surface. They have the ability to change direction if they hit an obstruction or wall and can also flip upright if they end up on their back. The vibrating motor inside this creature rotates a counterweight and propels the robotic creature forward. A fun and safe way to entertain the kids for hours. They are the perfect collectible robot pet for your kids. Collect them all!

- Assorted Colours
- Batteries included
- Dimensions: 45(L) x 17(W)mm
- Suitable for ages 5+

	Cat.	Qty 1+	Qty 3+	Qty 6+
Sold Each	YG-2891	$4.95	$4.45	$3.90

Electronic Bug Maze

A fantastic electronic bug habitat set. Comes complete with all the pieces required to build a beautiful home for the two electronic bugs supplied in the kit. Get your creative juices flowing and build amazing habitat structures; possibilities are endless. Pieces are easily connected in place.

Prepare to be enthralled for hours watching these little creatures scurry about in their habitat like real life bugs. You can also incorporate two mazes together to build an even bigger area for the bugs to explore in. Remember - The more bugs they have, the more fun it is!

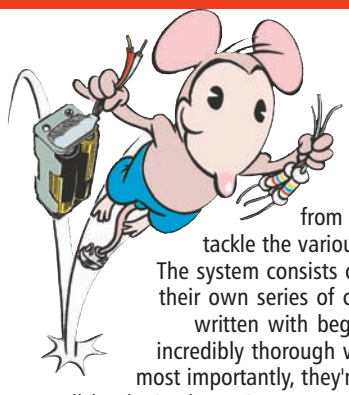
Additional Electronic Bugs sold separately.
Cat. YG-2891

- Suitable for ages 5+

WATCH VIDEO NEW LOWER PRICE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YG-2893	$19.95	$17.70	$15.70

Short Circuits Series



LEARNING ELECTRONICS IS FUN!!!

What it's all about...

Since its inception, the Short Circuits learning system has become the preferred platform from which students can confidently tackle the various levels of modern electronics. The system consists of the Short Circuits books and their own series of construction projects. Although written with beginners in mind, the books are incredibly thorough without being intimidating and most importantly, they're written with an emphasis on FUN! All books in the series are geared towards specific levels of electronics knowledge.

Short Circuits Vol 1 acts as an introduction to electronics, absolutely NO previous knowledge of electronics is needed! Short Circuits Vol 2 assumes the reader/constructor has knowledge up to the end of Short Circuits Vol 1. It contains over 20 exciting projects and introduces the novice to soldering etc. Short Circuits Vol 3 extends the concept. After completing Volume 3, there would be no reason why the constructor couldn't tackle virtually any construction project they desire! All books are lavishly illustrated and collectively boast over 70 exciting projects; each project logically follows from the previous one so while having enormous fun for the constructors knowledge is steadily progressing without mysterious gaps.

The operation of each project is fully described, along with full descriptions of the components you will encounter along the way. To maximise the fun and acquisition of learning, constructors are also shown how to modify and experiment with component changes and how they will change the performance of the project. Explanations of all technical terms are given in plain English - the books are a great read themselves.

Short Circuits Volume 1

SECOND EDITION

BOOK AVAILABLE

Our first book in the series uses a learning system designed around a baseboard, which you use to mount their projects. All components are connected together by our exclusive spring terminals. They are extremely easy to use, and don't even require a screwdriver.

At the back of the book is a paper template for each project, which attach to the baseboard. The springs are then inserted into the baseboard according to the locations shown on the template. The template then shows EXACTLY where each component goes, making project success almost a certainty.

The projects are fun to build and, more importantly, are very relevant to today's electronics. Each of the 20+ projects is powered from batteries and requires absolutely no soldering, making this learning system safe for ages 8+.

- Soft cover - 96 pages
- 205 x 275mm

↗	Qty 1+
Cat. BJ-8502	$9.95

Short Circuits Volume 2

BOOK AVAILABLE

Once constructors have the basic skills and knowledge either from a School Design and Technology course, or tackling Short Circuits Vol 1, you can now have some real fun! With this book (and associated project packs available separately - see following pages) they can make such things as a mini strobe light, police siren, mini organ, a couple of powerful radio transmitters, an FM radio - even a 'Knight Rider' scanner!!

All components are fully described and explained, along with tutorials on soldering iron and multimeter use. All projects are safe and battery powered.

- Soft cover - full colour 148 pages
- 205 x 275mm

Short Circuits by Jaycar Electronics

↗	Qty 1+
Cat. BJ-8504	$12.95

Short Circuits Volume 3

SECOND EDITION

BOOK AVAILABLE

This is the definitive electronics training manual and is far more than the weekend "fun-type", superficial approach to electronics. This volume presents more than 30 individual printed circuit board-based construction projects.

Naturally, soldering techniques are discussed in detail, as is the proper use of a digital multimeter. We describe projects that take from just 20 minutes to make (such as project 2, Ding Dong Doorbell), to a fully fledged Guitar Sustain which may take several hours to complete, but will give constructors an accessory that can last a lifetime.

Each project contains a full technical description, with experimental changes to each circuit also explained. After constructors have built any or all of the described projects, there is no reason why they would not be able to successfully tackle any of the construction projects published in the electronics magazines. This book will end up giving them the knowledge and skill that will elevate them into a fully fledged constructor!

- Softcover - full colour 128 pages
- 205 x 275mm

↗	Qty 1+
Cat. BJ-8505	$14.95

SHORT CIRCUITS VOLUME 1

SECOND EDITION

With Short Circuits Volume 1, we give the option of buying the book on its own, or together with the accompanying kit that contains the components for each of the 20-odd projects described in the book. Some of the exciting projects include a Police Siren, Electronic Organ, Sound Effects Unit, Light Chaser and a Solar Powered Radio (an inexpensive solar panel is optional and available separately). Of course, many more projects are included! Remember, no prior knowledge of electronics is needed and the projects are totally safe. This volume will teach constructors everything they need to get started in electronics and is suitable for ages 8+. Kits contain small parts.

- Book Cat BJ-8502 $9.95

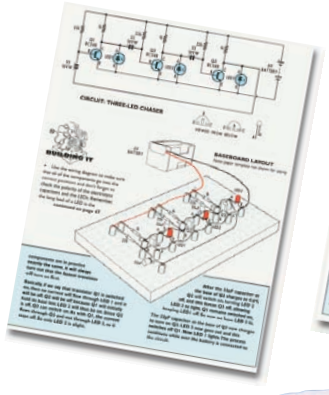
- **Circuit diagrams included for each project**
- **Safe 6 volt system**
- **Techtalk discusses circuit operation and is written in a clear, easy to understand language**
- **Component layout on the special breadboard is clearly illustrated for each project**
- **Fun characters introduce each project, explaining the projects use**

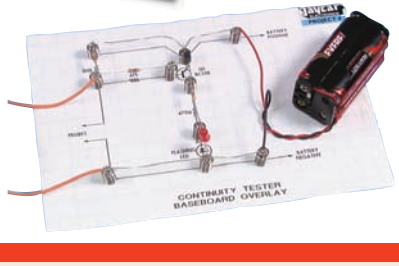
DIY

SOME OF THE EXCITING PROJECTS THAT YOU CAN BUILD FROM THIS BOOK INCLUDE:

MADE IN AUSTRALIA

- SHORT CIRCUIT TESTER
- MAGIC EYE LIGHT ALARM
- POLICE SIREN
- ELECTRONIC ORGAN
- SOUND EFFECTS UNIT
- LIGHT CHASER
- SOLAR POWERED RADIO
- 3 TYPES OF TRANSISTOR AMPS
- COMPUTER TYPE CIRCUITS
- AND MANY MANY MORE





TECH TIP!

Reviewed in Electronics Australia May 2000
"It's all very well done, and I'm not surprised that the Short Circuits book and matching kit of parts have proved very popular with schools and colleges, as well as beginning hobbyists. Together they provide an excellent way for newcomers to 'dip their toes' into the wonders of electronics, in an enjoyable and hassle-free way. And of course it has all been designed and published right here in Australia - a credit to all concerned."

TECH TIP!

NO PRIOR KNOWLEDGE OF ELECTRONICS NEEDED

Short Circuits Book

SECOND EDITION

This full colour 96 page book, which measures 205mm x 275mm is lavishly illustrated with over 100 drawings and diagrams. Each project features components which are "state of the art". The projects are fun to build but perhaps more importantly, are relevant to the electronics scene in the new millenium. It is a great read in itself and far superior to cheap alternatives.

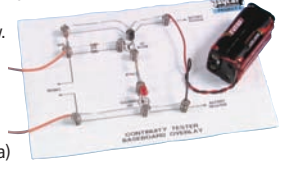
BOOK AVAILABLE

	Qty 1+
Cat. BJ-8502	$9.95

Short Circuits Project

WATCH VIDEO

The complete kit of parts available separately. This includes plastic baseboard, spring connectors and all components needed to complete every project in the book. No instructions are supplied with this kit as they come in the book which is available separately.



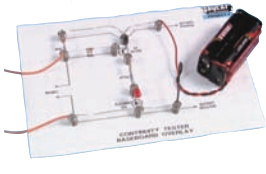
- Additional Hookup wire can be purchased (WH-3025)
- Optional Solar Cell Power Supply for project #16 is extra Cat ZM-9020 (batteries are also extra)
- 6VDC (4 X AA)

	Qty 1+	Qty 3+
Cat. KJ-8504	$33.95	$30.45

Short Circuits Book and Project

Apart from the book, we supply the baseboard, plenty of spring terminals and ALL the components required to build every project in the book, INCLUDING the bonus projects!

- Additional Hookup wire can be purchased (WH-3025)
- Optional Solar Cell Power Supply for project #16 is extra Cat ZM-9020 (batteries are also extra)
- 6VDC (4 X AA)



	Qty 1+	Qty 3+
Cat. KJ-8502	$39.95	$35.90

Short Circuits 2

SHORT CIRCUITS VOLUME 2

Once constructors have mastered the art of assembling a circuit with springs they will want to tackle projects that are more complex. The benefit of spring termination falls away once they get into projects that have over, say, 20 parts. In addition to this, projects that work on radio frequency, or RF for short, don't like springs as they start to act like little antennae all over the place! So it's time to graduate to the heart of modern electronics - the printed circuit board. This simple device fulfils the function of mounting board & circuit wiring in one. The critical element of success in printed circuit board - or PCB for short - assembly is good soldering. Soldering is not for 8 year olds but its fine if they are older or are under adult supervision. In Short Circuits II we teach the reader how to solder. We teach you a lot more as well, including:

- How to use a Multimeter**
- What tools will be needed.
- What sort of workspace is needed.
- How the circuit works (Tech talk).
- What to do next.
- How to make the circuit work in the real world.

Cat. BJ-8504 $12.95

RELATED PRODUCT...
A suitable 9V battery for all projects is our SB-2423 on page 291

TECH TIP!
****A Multimeter is just that. It enables you to measure all sorts of electrical units, volts, amps, ohms etc. They are the most useful piece of test equipment you will own and base models are not expensive.**

SHORT CIRCUITS IS A LEARNING SYSTEM

A key part of the Short Circuits learning system is that the mind is stimulated into learning electronics by building exciting projects and HAVING FUN AT THE SAME TIME. Constructors will get a real "buzz" from the exciting projects offered - 22 in all. These projects have useful functions in the "real world" and they may choose to keep them for a long time because they are so useful. For example, constructors can make a Bionic Ear amplifier for a grandparent. Listed below are the projects in the book. They have all been designed by professional engineers and tested to work reliably. Maybe one day the constructor will be an engineer, designing projects for other people.

- Full colour - 148 pages
- 205 x 275mm

TECH TIP!
Due to author's Copyright, instructions for each project are not included in the component pack. Constructors can purchase the book, or buy a set of instructions for each project separately.

TYPICAL TOOLS YOU WILL NEED

Low Cost DMM

- 19 Range
- 2000 Count
- Transistor test
- Diode Test
- 10A DC current
- Ideal first meter
- Compact size

TECH TIP!
ALL METERS INCLUDE QUALITY TEST LEADS

PERFECT FIRST METER
This is a full featured meter with plug-in 4mm probes AND transistor tester. This is the ideal first multimeter, and will give years of faithful service, in fact, you will only need to replace this meter if you require a unit with very high input impedance.

2 YEAR WARRANTY

Specifications	
Display	2000 count
Security class	Cat II 500V
Basic DC accuracy	0.5%
DC voltage	200mV, 2V, 20V, 200V, 1000V (± 0.5%)
AC voltage	200V, 750V (Max input 750V RMS) (± 1.2%)
DC current	200µA, 2mA, 20mA, 200mA, 10A (± 1.2%)
Resistance	200R, 2k, 20k, 200k, 2M (± 1.2%)
Ave/RMS	Ave
Input impedance	1M
Special features	Transistor test
Dimensions	125(H) x 68(W) x 23(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1500	$9.95	$8.75	$7.75

20/130W Soldering Iron Starter Kit

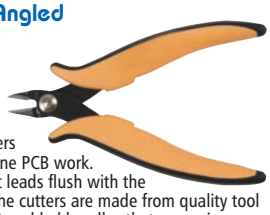
All the soldering essentials for the hobbyist. This kit represents excellent value, the best in soldering we've seen, anywhere. The sum of the individual parts amount to more than double the price we are selling this kit for.

Kit contains:
- 240V 20/130W Turbo soldering iron
- Spare tip
- Basic stand
- 1mm solder in dispenser tube
- Metal solder sucker with spare tip and O-ring

1 YEAR WARRANTY

Starter Kit	Cat.	Qty 1+	Qty 3+	Qty 6+
	TS-1651	$24.95	$22.35	$19.70

Precision 5" Angled Side Cutters



Precision side cutters that are ideal for fine PCB work. They will easily cut leads flush with the board's surface. The cutters are made from quality tool steel and have soft padded handles that are spring loaded for comfortable long term use.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1897	$11.95	$10.70	$9.50

Precision 6" Long Nose Pliers

Precision, slim line long nose pliers that are ideal for working in confined areas. They have serrated jaws so you can get a firm grip on the item you're holding. The pliers are made from quality tool steel and have soft padded handles that are spring loaded for comfortable long term use.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1887	$11.95	$10.70	$9.50

6 Piece Insulated Electronic Screwdriver Set

These screwdrivers have ergonomic handles with excellent non-slip grips. The shafts are fully insulated and rated for 1000V. The set contains all the smaller sizes you need for working on electronic gear. Storage case included.

- Slotted: 2mm, 2.5mm, 3mm
- Phillips: #00, #0, #1
- 1000V rated
- TÜV and GS approved
- Case: 192(L) x 130(W) x 26(H)mm

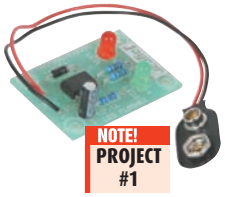
Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2026	$19.95	$17.70	$15.70

SHORT CIRCUITS 2 (CONTINUED)

SC2 Project - Red/Green Flasher

Here's a simple and easy-to-build first project. It flashes two LEDs (light emitting diodes) - one red and the other green - alternately, a bit like the light on a police car. A great way to learn how a 555 Timer IC works.

- PCB & all parts supplied
- Requires 9V battery
- Instructions NOT included.
- See KJ-8201 for individual instructions or full colour project book BJ-8504.
- PCB: 43 x 30mm



	Qty 1+	Qty 3+
Cat. KJ-8200	$7.95	$6.95
Instructions KJ-8201	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC2 Project - Countdown Timer

This neat project enables you to dial a time you want to elapse before you want something to happen, say the exposure of a camera shutter or an electrically operated door to stay open. At the end of the timed period (seconds to many minutes) a relay is energized which can switch something on or off. PCB and all parts supplied, including relay.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8203 for individual instructions or full colour project book BJ-8504.
- PCB: 61 x 47mm

	Qty 1+	Qty 3+
Cat. KJ-8202	$14.95	$13.35
Instructions KJ-8203	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC2 Project - Hee-Haw Siren with Flashing Light

This project will make the noise made by emergency vehicles when they are trying to get through traffic. PCB and all parts supplied including flashing LED.

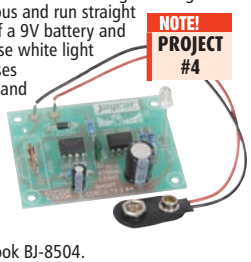
- Requires 9V battery.
- Instructions NOT included.
- See KJ-8205 for individual instructions or full colour project book BJ-8504.
- PCB: 57 x 51mm

	Qty 1+	Qty 3+
Cat. KJ-8204	$9.95	$8.75
Instructions KJ-8205	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC2 Project - Mini Strobe Light

No, this unit won't fill a disco with blinding white light. Those things are dangerous and run straight off 240V.This one runs off a 9V battery and gives a surprisingly intense white light especially in darkness. Uses state-of-the-art LED. PCB and parts including LED supplied.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8207 for individual instructions or full colour project book BJ-8504.
- PCB: 61 x 45mm

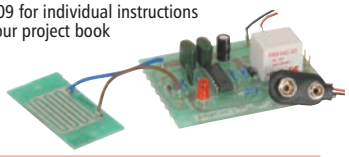


	Qty 1+	Qty 3+
Cat. KJ-8206	$18.95	$16.95
Instructions KJ-8207	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC2 Project - Touch Switch

This project allows you to turn things on or off simply by touching a small sensor pad with your finger. This could include operating an alarm, water pump, hi-fi speakers, or any other low voltage gadget.

- PCBs & all parts including the relay supplied
- Requires 9V battery
- Instructions NOT included.
- See KJ-8209 for individual instructions or full colour project book BJ-8504.
- PCB: 75 x 26mm

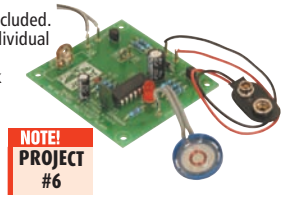


	Qty 1+	Qty 3+
Cat. KJ-8208	$14.95	$13.35
Instructions KJ-8209	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Drought Alarm

Well, not really a big drought. This will test the soil moisture of a favourite pot plant and an alarm will sound if the soil gets too dry.

- Instructions NOT included.
- See KJ-8211 for individual instructions or full colour project book BJ-8504
- PCB, speaker & components
- Requires 9V battery
- PCB: 63 x 57mm

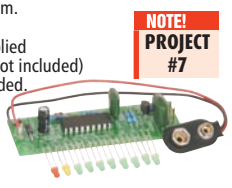


	Qty 1+	Qty 3+
Cat. KJ-8210	$14.95	$13.35
Instructions KJ-8211	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Audio Level Display

Make your own fancy volume level display you see on DJ mixing desks where the columns of light dance up and down with the music. Connect it to the output of your CD, tape player or radio. Build two of them for displays on your stereo hi-fi system.

- PCB and all parts supplied
- Requires 9V battery (not included)
- Instructions NOT included.
- See KJ-8213 for individual instructions or full colour project book BJ-8504.
- PCB: 75 x 26mm

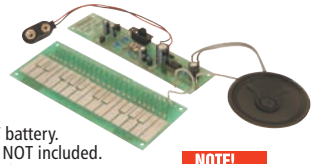


	Qty 1+	Qty 3+
Cat. KJ-8212	$14.95	$13.35
Instructions KJ-8213	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC2 Project - Electronic Organ

You can play simple tunes easily once you have built this project! The organ keyboard is actually part of the printed circuit board. It even has vibrato for extra realism.

Includes PCB and all board components.



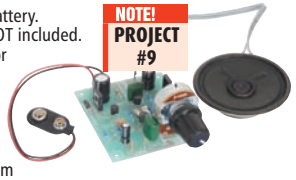
- Requires 9V battery.
- Instructions NOT included.
- See KJ-8215 for individual instructions or full colour project book BJ-8504.
- PCBs: 133 x 31mm, 133 x 51mm

	Qty 1+	Qty 3+
Cat. KJ-8214	$22.95	$20.35
Instructions KJ-8215	$2.50	
RECOMMENDED BOX - UB1	Cat. HB-6011	$4.45 ea

SC2 Project - No Brainer Amplifier

This amp is so easy to build, it's a no brainer! It will, however, give a powerful output to bring your MP3 player or sound card alive! Speaker supplied. Two required for stereo. PCB and all relevant parts included.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8217 for individual instructions or full colour project book BJ-8504.
- PCB: 64 x 57mm

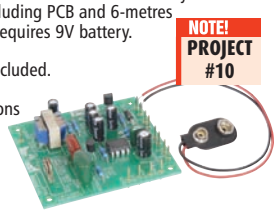


	Qty 1+	Qty 3+
Cat. KJ-8216	$14.95	$13.35
Instructions KJ-8217	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Beam Me Up Scotty Simple Intercom

This project enables you to talk (i.e. not shout) between parts of a house, or a house and a garage. You can even leave it on, say in the kitchen to monitor a baby's room. All parts supplied including PCB and 6-metres of connecting wire. Requires 9V battery.

- Instructions NOT included.
- See KJ-8219 for individual instructions or full colour project book BJ-8504.
- PCB: 63 x 57mm

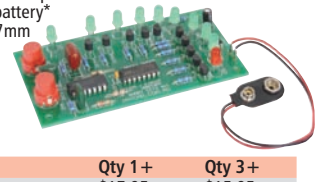


	Qty 1+	Qty 3+
Cat. KJ-8218	$23.95	$21.35
Instructions KJ-8219	$2.50	
RECOMMENDED BOX - UB3 x 2	Cat. HB-6013	$3.95 ea

SC2 Project - Skeet Shoot Game

Here's a fun way to test your hand-eye coordination. The game sends a burst-of-light 'skeet' up along a string of ten LEDs, and you have to try to 'hit' it by pressing the FIRE button at exactly the same time as it reaches the red LED at the end.

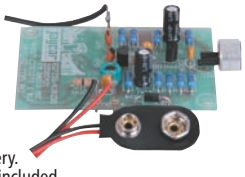
- Instructions NOT included.
- See KJ-8211 for individual instructions or full colour project book BJ-8504
- PCB, LEDs and components
- Requires 9V battery*
- PCB: 57 x 107mm



	Qty 1+	Qty 3+
Cat. KJ-8220	$17.95	$15.95
Instructions KJ-8221	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Simple FM Bug

Small portable FM microphone. Works surprisingly well. Use it as a baby minder/monitor as well. PCB and all parts supplied.



- Requires 9V battery.
- Instructions NOT included.
- See KJ-8231 for individual instructions or full colour project book BJ-8504.
- PCB: 59 x 41mm

	Qty 1+	Qty 3+
Cat. KJ-8230	$14.95	$13.35
Instructions KJ-8231	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

Short Circuits 2

SHORT CIRCUITS 2 (CONTINUED)

SC2 Project - Metronome

NOTE! PROJECT #13

This neat little metronome does everything that a traditional metronome does. It produces an adjustable 'tick' sound to help you play your music at just the right tempo. It also flashes a LED once per bar, to help you get the music's rhythm right as well.

- PCB, speaker and all parts supplied including knobs.
- Requires 9V battery
- Instructions NOT included.
- See KJ-8233 for individual instructions or full colour project book BJ-8504.
- PCB: 82 x 82mm

	Qty 1+	Qty 3+
Cat. KJ-8232	$18.95	$16.95
Instructions KJ-8233	$2.50	
RECOMMENDED BOX - UB1	Cat. HB-6011	$4.45 ea

SC2 Project - Jiminy! What's That Cricket Noise?

This fun project makes the distinct sound of a cricket when triggered by a hidden microphone. Someone walks into a room, says something and the next thing this loud cricket starts to chirp! Hours of fun. PCB and all other parts including microphone supplied.

NOTE! PROJECT #14

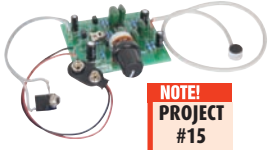
- Requires 9V battery.
- Instructions NOT included.
- See KJ-8225 for individual instructions or full colour project book BJ-8504.
- PCB: 61 x 45mm

	Qty 1+	Qty 3+
Cat. KJ-8224	$14.95	$13.35
Instructions KJ-8225	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Bionic Ear

This project enables you to listen to a conversation (or a bird in a tree, etc) beyond what you would normally hear. It uses the principle of a directional microphone. PCB and parts supplied. A plastic bowl or similar is required for the reflector.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8227 for individual instructions or full colour project book BJ-8504.
- PCB: 63 x 57mm



NOTE! PROJECT #15

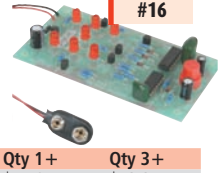
	Qty 1+	Qty 3+
Cat. KJ-8226	$17.95	$15.95
Instructions KJ-8227	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Casino! Electronic Dice

Well dice is really plural and this is just one dice a die. At the press of a button roll 6 light emitting diodes flash briefly and only one stays lit, representing a number between 1 and 6. Truly, truly random and never rolls off the table! PCB and all parts supplied.

NOTE! PROJECT #16

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8223 for individual instructions or full colour project book BJ-8504.
- PCB: 108 x 51mm



	Qty 1+	Qty 3+
Cat. KJ-8222	$14.95	$13.35
Instructions KJ-8223	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Sound Like a Dalek

This project will change your voice into that metallic sounding robot voice so familiar in the space adventure movies. PCB and parts supplied. Connect it to the no brainer amp and get really scary!

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8229 for individual instructions or full colour project book BJ-8504.
- PCB: 102 x 57mm

NOTE! PROJECT #17

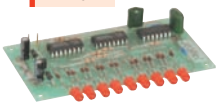
	Qty 1+	Qty 3+
Cat. KJ-8228	$23.95	$21.35
Instructions KJ-8229	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Knight Rider Light Scanner

Now you can make the light scanner that goes on the bonnet of that famous car. Looks fantastic in all sorts of places! PCB and all parts supplied.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8237 for individual instructions or full colour project book BJ-8504.
- PCB: 102 x 55mm

NOTE! PROJECT #18



	Qty 1+	Qty 3+
Cat. KJ-8236	$19.95	$17.70
Instructions KJ-8237	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC2 Project - Event counter, 0 to 999

This project demonstrates how 3-digit counters work and can be used for real-world counting jobs, like counting laps on a slot car set, etc. An excellent 'hands on' introduction to electronics.

- PCB and all parts supplied
- Requires 9V battery
- Instructions NOT included.
- See KJ-8235 for instructions or full colour project book BJ-8504.
- PCB: 127 x 76mm

NOTE! PROJECT #20

	Qty 1+	Qty 3+
Cat. KJ-8234	$23.95	$21.35
Instructions KJ-8235	$2.50	
RECOMMENDED BOX - UB1	Cat. HB-6011	$4.45 ea

SC2 Project - FM Radio with Electronic Tuning

This is a true state-of-the-art 88-108MHz FM radio with electronic station tuning and powerful amplifier included! It has a voltage regulated power supply and works really well. Your friends wont believe you built it. PCB and all board parts supplied.

- Requires 9V battery.
- Instructions NOT included.
- See KJ-8239 for individual instructions or full colour project book BJ-8504.
- PCB: 108 x 51mm

NOTE! PROJECT #21

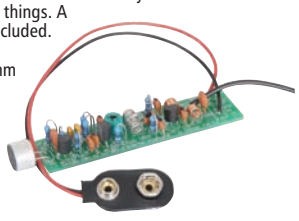
	Qty 1+	Qty 3+
Cat. KJ-8238	$34.95	$31.45
Instructions KJ-8239	$2.50	
RECOMMENDED BOX	Cat. HB-6032	$7.95 ea

SC2 Project - Three Stage FM Transmitter

So stable it could be used as a small radio station. The audience will be limited to the backyard as there are rules about such things. A microphone is included.

- PCB: 70 x 17mm

Instructions included in kit.



NOTE! PROJECT #22

	Qty 1+	Qty 3+
Cat. KJ-8750	$23.95	$21.35
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

TECH TIP

Due to author's Copyright, instructions for each project are not included in the component pack. Constructors can purchase the book, or buy a set of instructions for each project separately.

Short Circuits - Volume II

Once constructors have the basic skills and knowledge either from a School Design and Technology course, or tackling Short Circuits Vol 1, they can now have some real fun! With this book (and associated project packs available separately - see following pages) they can make such things as a mini strobe light, police siren, mini organ, a couple of powerful radio transmitters, an FM radio - even a 'Knight Rider' scanner!!

All components are fully described and explained, along with tutorials on soldering iron and multimeter use. All projects are safe and battery powered.

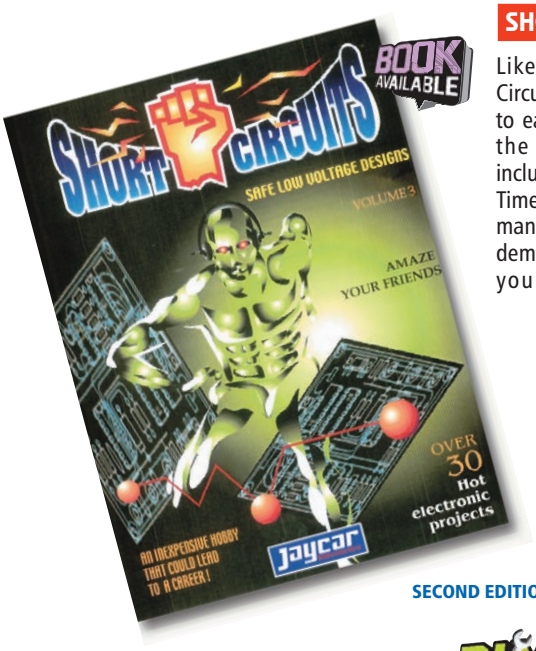
- Soft cover - full colour 148 pages
- Dimensions: 205(W) x 275(H)mm

BOOK AVAILABLE

	Qty 1+
Cat. BJ-8504	$12.95

Short Circuits by Jaycar Electronics

SHORT CIRCUITS VOLUME 3



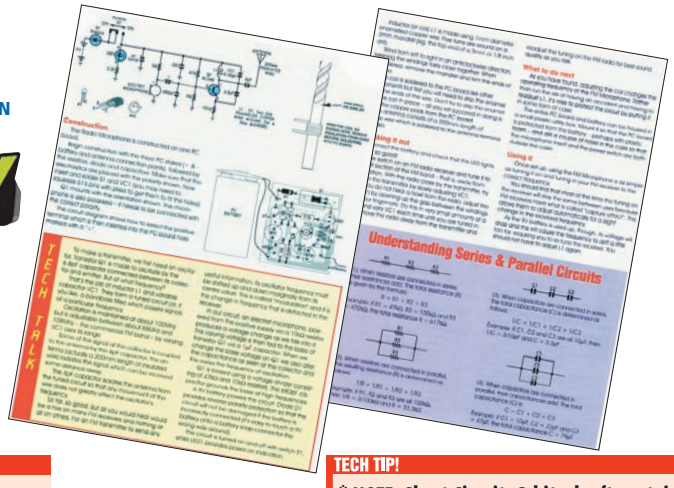
SECOND EDITION

Like our Volumes 1 & 2 book, Short Circuits Volume 3 is sold independently to each of the 30-odd projects. Some of the projects constructors will build include a Guitar Sustain Unit, a Universal Timer, Car Alarm, Two Lamp Flasher plus many more! There's even a project that demonstrates how constructors can use your computer to interface to the realworld via a computer's parallel port. Building the projects described in Volume 3 will provide constructors with the confidence needed to tackle more complex projects, such as those described in the various electronics hobby magazines.

*Instructions to build all the projects are in the book or constructors may purchase individual instructions at a small charge due to copyright costs.

- Book: Cat. BJ-8505, $14.95
- 128 Pages - Full Colour. 205x275mm

TECH TIP!
Due to author's Copyright, instructions for each project are not included in the component pack. Constructors can purchase the book, or buy a set of instructions for each project separately. (We have negotiated a lower price for these.)



- **Step by step instructions show you how to assemble each project**
- **Techtalk explains the operation of each circuit in detail, to help constructors gain a thorough knowledge of the "Building Blocks" used in circuit design**
- **"What To Do Next" shows constructors how to modify or further improve your project**
- **Basic circuit theory is provided to increase constructors level of understanding**

TECH TIP!
*** Instructions to build all the projects are in the book - ie. constructors will need the book to build the projects if constructors don't buy the instructions separately.**

TECH TIP!
*** NOTE: Short Circuits 3 kits don't contain batteries. We would rather see constructors use a fresh battery once the project is completed.**

SC3 Project - Dasher Flasher for Cars

A really low cost way to deter thieves from breaking into your car. This lamp flasher mounts on your car dashboard and starts flashing when the ignition is off. Looks like the real thing. Kit includes PCB, lamp and all components.

- PCB: 47 x 41mm

NOTE! PROJECT #1

	Qty 1+	Qty 3+
Cat. KJ-8050	$9.95	$8.75
Instructions KJ-8051	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC3 Project - Electronic Eye

Install this kit to monitor traffic on a path or through a doorway. When a person or object breaks the beam the loudspeaker will sound. Kit includes PCB, LDR, speaker and all components. 12VDC power required.

- PCB: 105 x 61mm

NOTE! PROJECT #3

	Qty 1+	Qty 3+
Cat. KJ-8054	$14.95	$13.35
Instructions KJ-8055	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Infrared Remote Link

This can be used as a remote on/off or momentary switch.

- Kit includes PCBs, 9V battery and all electronic components.
- Receiver requires 12VDC power.
- PCBs: 105 x 60mm

NOTE! PROJECT #5

	Qty 1+	Qty 3+
Cat. KJ-8058	$28.95	$25.95
Instructions KJ-8059	$2.50	
RECOMMENDED BOX - UB3 X 2	Cat. HB-6013	$3.95 ea

SC3 Project - Ding Dong Door Bell

Another useful little kit that generates the sound of a classic Ding Dong door bell. Just the thing for your front door. Kit includes PCB, speaker and all components. 12VDC power required.

- PCB: 105 x 60mm

NOTE! PROJECT #2

	Qty 1+	Qty 3+
Cat. KJ-8052	$12.95	$11.35
Instructions KJ-8053	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Simple FM Alarm

Track moving objects, find the dog when it runs away or even recover your stolen goods using an FM radio. This kit transmits a tone over the FM band so that you can track it down using an FM radio. Kit includes PCB, 9V battery and all electronic components. A fun & useful project.

- PCB: 105 x 60mm

NOTE! PROJECT #4

	Qty 1+	Qty 3+
Cat. KJ-8056	$14.95	$13.35
Instructions KJ-8057	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Simple Intruder Alarm

This simple design features a normally open and normally closed input, 40 second siren duration and triggered LED indication.

NOTE! PROJECT #6

- Kit includes PCB, buzzer & electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8060	$14.95	$13.35
Instructions KJ-8061	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

Short Circuits 3

SHORT CIRCUITS 3 PROJECTS

SC3 Project - Screamer Car Alarm

A more sophisticated alarm including entry/exit delay, flashing deterrent light, soft warning alarm and deafening internal siren. Thieves will make a hasty retreat!

- Kit includes PCB, siren and electronic components.
- PCB: 132 x 88mm

	Qty 1+	Qty 3+
Cat. KJ-8062	$32.95	$29.45
Instructions KJ-8063	$2.50	
RECOMMENDED BOX - UB2	Cat. HB-6012	$6.95 ea

SC3 Project - Two Lamp Flasher

Alternate flashing halogen lamps with an adjustable flash rate between 1 to 4 seconds.

- Kit includes PCB, two halogen lamps with bases and all electronic components.
- 12VAC required - use MP-3044
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8070	$29.95	$26.90
Instructions KJ-8071	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Simple FM Microphone

This FM transmitter has many possible uses including baby room monitor, wireless microphone or spy bug. It can be picked up on any FM radio.

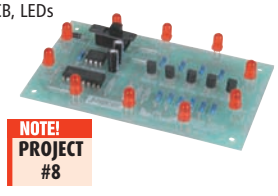
- Kit includes PCB, electret microphone, 9V battery and electronic components.
- PCB: 48 x 42mm

	Qty 1+	Qty 3+
Cat. KJ-8078	$12.95	$11.35
Instructions KJ-8079	$2.50	
RECOMMENDED BOX - UB5	Cat. HB-6015	$2.95 ea

SC3 Project - Light Chase

Dazzling display using 10 LEDs that appear to chase each other. Build for a shop, theatre or advertising display.

- Kit includes PCB, LEDs and electronic components.
- 12VDC power required.
- PCB: 105 x 60mm



	Qty 1+	Qty 3+
Cat. KJ-8064	$12.95	$11.35
Instructions KJ-8065	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - The Champ Amplifier

A cheap and handy amplifier that can improve low-level signal sources so they can be heard on headphones or a speaker.

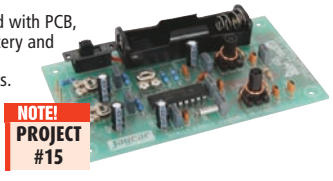
- Kit includes PCB, volume potentiometer and all electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8072	$14.95	$13.35
Instructions KJ-8073	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Mini-mitter FM Transmitter

Transmit stereo audio from your tape deck or CD player to any FM radio elsewhere in your house. You could even tune in on a portable walkabout radio.

- Kit supplied with PCB, 1 x AA battery and electronic components.
- PCB: 105 x 60mm

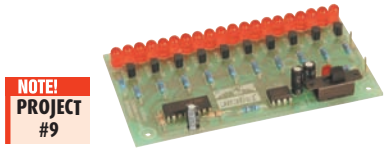


	Qty 1+	Qty 3+
Cat. KJ-8114	$23.95	$21.35
Instructions KJ-8115	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Light Scanner / Chaser

An impressive display using 20 LEDs that chase forward and backward - just like scanners seen in space movies.

- Kit includes PCB, LEDs & all electronic components.
- 12VDC power required.
- PCB: 105 x 60mm



	Qty 1+	Qty 3+
Cat. KJ-8066	$16.95	$14.95
Instructions KJ-8067	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Universal Stereo Preamplifier

If the input signal to your amplifier is not sufficient you will need a preamplifier such as this one to boost the signal.

- Kit includes PCB and all electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8074	$14.95	$13.35
Instructions KJ-8075	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Low-cost Intercom System

A low-cost method of communicating between two rooms. The remote unit is hands free so itës also great as a baby monitor.

- Kit includes PCB, speakers and electronic components.
- 12VDC required.
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8080	$15.95	$14.35
Instructions KJ-8081	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Really Bright Flasher

Attract attention with this bright halogen light flasher. The flash rate can be adjusted between 0.5 to 3.5 seconds.

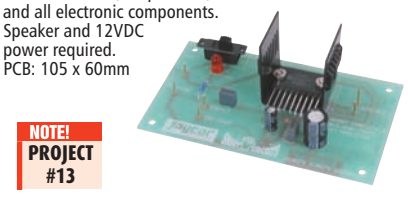
- Kit includes PCB, 12V halogen lamp with base and all electronic components.
- 12VAC power required - use MP-3044.
- PCB: 105 x 60mm

	Qty 1+	Qty 3+
Cat. KJ-8068	$24.95	$22.35
Instructions KJ-8069	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - High Power 12V Amplifier

This amplifier-on-a-chip can deliver about 13.5-watts into a 4-ohm speaker. That's quite loud!

- Kit includes PCB, amplifier IC, heatsink and all electronic components.
- Speaker and 12VDC power required.
- PCB: 105 x 60mm

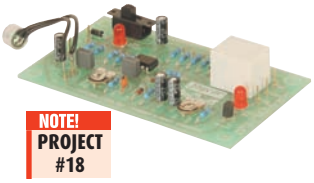


	Qty 1+	Qty 3+
Cat. KJ-8076	$23.95	$21.35
Instructions KJ-8077	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - VOX - Sound Switch

This sound-activated switch closes a relay when a loud-enough sound is heard. It switches off when the sound stops. Ideal for radio transmitters or surveillance applications.

- Kit includes PCB, relay, electret mic & electronic components.
- 12VDC required.
- PCB: 105 x 60mm

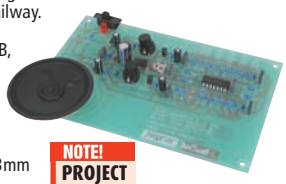


	Qty 1+	Qty 3+
Cat. KJ-8084	$14.95	$13.35
Instructions KJ-8085	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SHORT CIRCUITS 3 PROJECTS

SC3 Project - Train Sound FX

Authentic sounding train whistle and horn sound effects for your model railway.



- Kit includes PCB, speaker and electronic components.
- 12VDC power required.
- PCB: 160 x 103mm

NOTE! PROJECT #19

	Qty 1+	Qty 3+
Cat. KJ-8086	$27.95	$24.95
Instructions KJ-8087	$2.50	
RECOMMENDED BOX - UB2	Cat. HB-6012	$6.95 ea

SC3 Project - Guitar Practice Amplifier

This low cost amplifier allows you to practice your guitar without annoying the neighbours. It has a guitar type input socket, small speaker and volume.

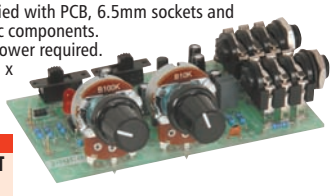
- Kit supplied with PCB, speaker, socket and electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

NOTE! PROJECT #22

	Qty 1+	Qty 3+
Cat. KJ-8092	$16.95	$14.95
Instructions KJ-8093	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Guitar Sustain Unit

Add this sustain unit to your guitar to make it sound more fulfilling. Features adjustable Decay and Attack.



- Kit supplied with PCB, 6.5mm sockets and electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

NOTE! PROJECT #26

	Qty 1+	Qty 3+
Cat. KJ-8100	$23.95	$21.35
Instructions KJ-8101	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Guitar Distortion Unit

Distortion is popular to many guitarists. It can make the music sound quite different. Project includes PCB, 6.5mm sockets and electrical components.

- 12VDC power required.
- PCB: 105 x 60mm

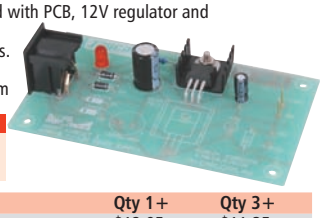
NOTE! PROJECT #27

	Qty 1+	Qty 3+
Cat. KJ-8102	$16.95	$14.95
Instructions KJ-8103	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Regulated +12V Power Supply

Many of the Short Circuits 3 projects require 12VDC power. Using our plugpack (MP-3055), this low cost power supply is ideal to power these projects.

- Kit supplied with PCB, 12V regulator and electronic components.
- PCB: 105 x 60mm



NOTE! PROJECT #28A

	Qty 1+	Qty 3+
Cat. KJ-8104	$12.95	$11.35
Instructions KJ-8105	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Regulated +/- 12V Power Supply

Some applications need a positive and negative supply. This circuit will supply a +12V and -12V rail.

- Kit supplied with PCB, 12V regulators and electronic components.
- Requires plugpack MP-3055
- PCB: 105 x 60mm

NOTE! PROJECT #28B

	Qty 1+	Qty 3+
Cat. KJ-8106	$14.95	$13.35
Instructions KJ-8107	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Universal Timer

This timer is adjustable between 1-second to 3.5-minutes. An LED illuminates during the timing period and a buzzer sounds at the end.

- Kit supplied with PCB, buzzer & electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

NOTE! PROJECT #29

	Qty 1+	Qty 3+
Cat. KJ-8108	$16.95	$14.95
Instructions KJ-8109	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

SC3 Project - Waveform Generator

This low-cost signal generator produces adjustable square and triangular waves between 100Hz-20kHz. Ideal for testing, troubleshooting and developing circuits.

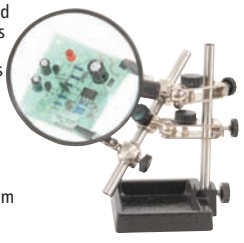
- Kit supplied with PCB and electronic components.
- 12VDC power required.
- PCB: 105 x 60mm

NOTE! PROJECT #30

	Qty 1+	Qty 3+
Cat. KJ-8110	$16.95	$14.95
Instructions KJ-8111	$2.50	
RECOMMENDED BOX - UB3	Cat. HB-6013	$3.95 ea

PCB Holder with Magnifying Glass

Any time you need that extra bit of help with your PCB assembly, this pair of helping hands will get you out of trouble. With a 90mm magnifying glass, it also provides an extra pair of eyes. Infinitely adjustable for height and any working angle you may need. The two alligator clips provide secure support for boards as small as 32mm wide. Mainly intended for PCB assembly, this handy tool can be adapted for countless other uses in the workshop or around the house.

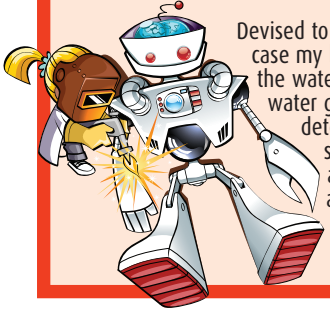


- 3 x Magnification
- Dimensions:
  Base: 78 x 98mm
  Height: 145mm

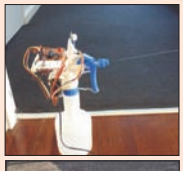
Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1983	$12.95	$11.35	$10.35

Motion Detection Cat Repellent Water Gun

Makers Name: Pero Van Der Merwe **Location: New Zealand**



Devised to keep cats away from any area (in my case my bedroom door) by detecting motion and then activating the water spray gun. This is the 5th version of the automated water gun and consists of a PICAXE microcontroller, motion detection PIR, servo motor, a standard spray bottle, 5V switchmode supply (couteracts the flat battery loophole) and various components. Read about Ben the cat and his ability to outsmart his owner on the 4 previous attemps but not with version 5.



For more details scan the QR code or go to www.jaycar.com.au/makers

Cable & Accessories

Our range of cable this year has been boosted with the introduction of heavy-grade DC Power Cables, Boat, Caravan and other Trailer Cables, as well as a brand new range of Heat - Shrinkable product.

Would-you-beleive you can get Braided Heatshrink and Abrasion Resistant Heat Shrink - see page 122

INDEX

CABLE & ACCESSORIES

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HOOK-UP CABLE

Flexible Light Duty - Rolls — 25 metre roll

Quality 13 x 0.12mm tinned hook-up wire on plastic spools.

Current rating 0.6A		Max temp. 70°C	
PVC insulation		AWG 26	
Resistance (20°C)		0.1365 ohm/m	
Red	WH-3000	Yellow	WH-3004
Black	WH-3001	Green	WH-3005
Brown	WH-3002	Blue	WH-3006
Orange	WH-3003	White	WH-3007

	1+ Rolls	4+ Rolls	10+ Rolls
Sold Per Roll	$4.95	$4.45	$3.90

Flexible Light Duty Reel Packs - Pack of 8 — 25 metre roll

Quality 13 x 0.12mm tinned hook-up wire on plastic spools.

Current rating 0.6A		Max temp. 70°C	
PVC insulation		AWG 26	
Resistance (20°C)		0.1365 ohm/m	
Stranding		13 x 0.12mmTC	
Overall dia.		1.8mm	

	Cat.	1+ Pack	4+ Packs	10+ Packs
Pkt 8	WH-3009	$34.95	$31.45	$28.50

Hook Up Cable Packs — 2 metre lengths

2 metres of 8 different colours of 10 x 0.12mm hook-up cable

Lengths: 2 metres		16 metres in all	
Qty: 8 pcs		10 x 0.12mm	

	Cat.	Qty 1+	Qty 5+	Qty 10+
	WH-3025	$4.95	$4.45	$3.90

WIRE WRAP

Nichrome Resistance Wire

Used for wiring heating elements such as toasters, etc. 80% nickel, 20% chromium. Resistance 13.77 ohm per metre.
- Size 28 B&S (0.315mm).
- Pack of 4 metres.

LENGTH 4 METRES

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WW-4040	$4.95	$4.45	$3.90

Wire Wrap on Spools

This Kynar wire is high quality silver plated.
- Available in three colours.
- Supplied on a 33 metre reel

	Cat.	Qty 1+	Qty 4+	Qty 10+
Red	WW-4344	$15.95	$14.35	$12.70
Black	WW-4345	$15.95	$14.35	$12.70
Blue	WW-4346	$15.95	$14.35	$12.70

COPPER WIRE

Enamelled Copper Wire

This soft copper wire is coated in a high dielectric strength varnish. You can solder through the enamel, but we recommend that you lightly sandpaper the wire ends with 200+ grit paper to ensure good solder adhesion, especially with RoHS type solder.

MADE IN AUSTRALIA

mm	B&S	Wght	SWG	Approx Lm	Cat.	1+ Roll	4+ Rolls	10+ Rolls
0.25	30	25g	33	58	WW-4012	$6.95	$6.25	$5.50
0.315	28	25g	31	40	WW-4013	$6.95	$6.25	$5.50
0.4	26	25g	28	22	WW-4014	$6.95	$6.25	$5.50
0.5	24	100g	25	57	WW-4016	$9.95	$8.75	$7.75
0.63	22	100g	23	36	WW-4018	$9.95	$8.75	$7.75
0.8	20	100g	21	22	WW-4020	$9.95	$8.75	$7.75
1.0	18	100g	19	14	WW-4022	$9.95	$8.75	$7.75
1.25	16	100g	18	9	WW-4024	$9.95	$8.75	$7.75

Tinned Copper Wire

Two handy sizes of AWG 22 (0.71mm dia.) for wire links etc.

	Weight	Cat.	1+ Rolls	4+ Rolls	10+ Rolls
	25g	WW-4032	$12.95	$11.35	$10.35
	100g	WW-4030	$29.95	$26.90	$23.70

GENERAL PURPOSE POWER CABLE

Flexible Light Duty — 100 metre roll

13 x 0.12mm. Suited for all general purpose wiring. 8 different colours available. PVC insulation.

				Rated Current	0.6A
				Conductor Dia.	0.42mm
Red	Cat. WH-3010	Black	Cat. WH-3011	Conductor mm²	0.147mm²
Brown	Cat. WH-3012	Orange	Cat. WH-3013	Overall Dia.	1.8mm
Yellow	Cat. WH-3014	Green	Cat. WH-3015	AWG	25
Blue	Cat. WH-3016	White	Cat. WH-3017	Stranding	13 x 0.12mmTC

	Per Metre	1+ Rolls	5+ Rolls
All Types	$0.25	$15.00	$12.00

Heavy Duty — 100 metre roll

24 x 0.2mm. Suited for 250V wiring and general heavy duty work. PVC insulation.

		Rated Current	7.5A
		Conductor Dia.	0.97mm
		Conductor mm²	0.75mm²
		Overall Dia.	2.4mm
Red Cat. WH-3040	Black Cat. WH-3041	AWG	18/19
Green Cat. WH-3042		Stranding	24 x 0.2mm

	Per Metre	1+ Rolls	5+ Rolls
All Types	$0.50	$40.00	$30.00

Extra Heavy Duty — 100 metre roll

32 x 0.2mm. Suited for 250V wiring and general heavy duty work. PVC insulation.

		Rated Current	10A
		Conductor Dia.	1.15mm
		Conductor mm²	1mm²
		Overall Dia.	2.8mm
		AWG	17
Brown Cat. WH-3050	Blue Cat. WH-3052	Stranding	32 x 0.2mm

	Per Metre	1+ Rolls	5+ Rolls
All Types	$0.70	$60.00	$45.00

This colour pricebar denotes a Clearance item - check for specials.

HIGH CURRENT, GENERAL PURPOSE, MARINE & AUTOMOTIVE

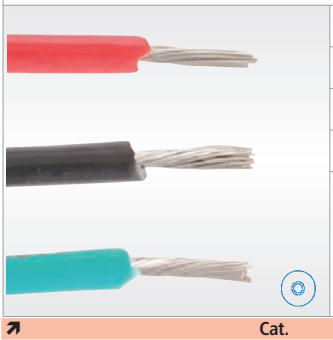
RELATED PRODUCT...
For lighter wire see page 114

SINGLE CORE CONDUCTORS

7.5 Amp Tinned - Handy Packs — 10 metre roll

Flexible heavy duty tinned copper cable suitable for general purpose wiring up to 250V supplied on an easy to use handy pack 10m reel. Suitable for use in marine applications.

NEW 2013



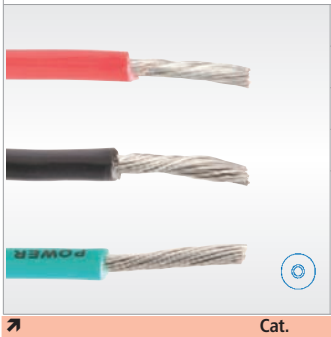
Rated Current: 7.5A	**Stranding:** 24 x 0.2mmTC
Conductor Dia.: 0.97mm	**Insulation:** PVC
Conductor mm2: 0.75mm²	**Resistance (20˚C):** 0.0237 ohm/m
AWG: 18/19	**Overall dia.:** 2.4mm

	Cat.	1+ Roll	4+ Rolls	10+ Rolls
Red	WH-3045	$7.95	$6.95	$6.25
Black	WH-3046	$7.95	$6.95	$6.25
Green	WH-3047	$7.95	$6.95	$6.25

15 Amp Tinned - Handy Packs — 10 metre roll

Flexible DC tinned copper power cable suitable for general purpose automotive and marine applications. Supplied on an easy to use 10m handy pack reel and available in three colours.

NEW 2013



Rated current: 15A	**Stranding:** 26 x 0.3mm
Total diameter: 3.3mm	**Insulation:** PVC
	Max temp.: 80˚C
AWG: 16	Tinned copper cable

	Cat.	1+ Roll	4+ Rolls	10+ Rolls
Red	WH-3054	$12.95	$11.35	$10.35
Black	WH-3055	$12.95	$11.35	$10.35
Green	WH-3056	$12.95	$11.35	$10.35

15 Amp Tinned, by the metre — 100 metre roll

Flexible DC tinned copper power cable suitable for general purpose automotive and marine applications.

NEW 2013

Rated Current	15A	**Stranding**	26 x 0.3mmTC
Conductor Dia.	1.5mm	**Insulation**	PVC
Conductor mm²	1.84mm²	**Resistance (20˚C)**	0.0108 ohm/m
AWG	15	**Overall Dia.**	3.2mm

	Cat.	Per Metre	1+ Rolls	5+ Rolls
Red	WH-3073	$1.10	$80.00	$70.00
Black	WH-3075	$1.10	$80.00	$70.00

25 Amp Tinned, by the metre — 100 metre roll

Ideal for most automotive wiring. Tinned for corrosion prevention in marine applications.

Rated Current	25A	**Stranding**	41 x 0.3mmTC
Conductor Dia.	1.9mm	**Insulation**	PVC
Conductor mm²	2.9mm²	**Resistance (20˚C)**	0.0059 ohm/m
AWG	12	**Overall Dia.**	3.5mm

	Cat.	Per Metre	1+ Rolls	5+ Rolls
Red	WH-3080	$2.20	$185.00	$165.00
Black	WH-3082	$2.20	$185.00	$165.00

60 Amp Tinned, by the metre — 100 metre roll

Red/clear single conductor (black not supplied.) If black identifier required simply strip off the red sheath which will reveal a clear insulation.

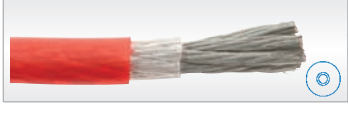
Rated Current	60A	**Stranding**	105 x 7 x 0.12mmTC
Conductor Dia.	3.2mm	**Insulation**	PVC
Conductor mm²	8mm²	**Resistance (20˚C)**	0.0025 ohm/m
AWG	8	**Overall Dia.**	7.0mm

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3061	$3.60	$330.00	$275.00

100 Amp Tinned, by the metre — 50 metre roll

Red/clear single conductor (black not supplied.) If black identifier required simply strip off the red sheath which will reveal a clear insulation.



Rated Current	100A	**Stranding**	38 x 7 x 7 x 0.12mmTC
Conductor Dia.	See website	**Insulation**	PVC
Conductor mm²	21.1mm²	**Resistance (20˚C)**	0.00112 ohm/m
AWG	4	**Overall Dia.**	10mm

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3065	$8.90	$370.00	$348.00

200 Amp Tinned, by the metre — 30 metre roll

Red/clear single conductor (black not supplied.) If black identifier required simply strip off the red sheath which will reveal a clear insulation.

Rated Current	200A	**Stranding**	61 x 7 x 7 x 0.12mmTC
Conductor Dia.	See website	**Insulation**	PVC
Conductor mm²	33.7mm²	**Resistance (20˚C)**	0.00055 ohm/m
AWG	2	**Overall Dia.**	13.5mm

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3071	$14.50	$360.00	$315.00

300 Amp Tinned, by the metre — 25 metre roll

Red/clear single conductor (black not supplied.) If black identifier required simply strip off the red sheath which will reveal a clear insulation.

Rated Current	300A	**Stranding**	96 x 7 x 7 0.12mm
Conductor Dia.	See website	**Insulation**	PVC
Conductor mm²	53.5mm²	**Resistance (20˚C)**	0.00025 ohm/m
AWG	0	**Overall Dia.**	16mm

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3093	$19.50	$437.00	$350.00

AC, DC & Solar Cable

2 CORE CONDUCTORS

7.5 Amp Tinned, by the metre — 100 metre roll

Double insulated 2 core tinned power cable suitable for automotive and marine applications. (PVC + 24 x 0.2mmTC) x 2

NEW 2013

Rated Current	7.5A	Stranding	(24 x 0.2mmTC) x 2
Conductor diameter	0.97mm x 2	Insulation	PVC
Conductor mm²	0.75mm² x 2	Resistance (20°C)	0.0237 ohm/m
AWG	18	Dimensions	3mm x 6.2mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3057	$1.20	$90.00	$80.00

15 Amp Tinned, by the metre — 100 metre roll

Double insulated 2 core tinned power cable suitable for automotive and marine applications (PVC + 48 x 0.2mmTC) x 2

RESPONSE

Rated Current	15A	Stranding	(48 x 0.2mmTC) x 2
Conductor diameter	1.45mm x 2	Insulation	PVC
Conductor mm²	1.5mm² x 2	Resistance (20°C)	0.0123 ohm/m
AWG	16	Dimensions	4.5mm x 7.2mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3079	$2.60	$220.00	$200.00

56 Amp Tinned, by the metre — 50 metre roll

For higher current applications where twin core cabling is required. Red & black colour for easy identification.

Rated Current	56A	Stranding	(7 x 101 x 0.12mmTC) x 2
Conductor diameter	3.2mm x 2	Insulation	PVC
Conductor mm²	8mm² x 2	Resistance (20°C)	0.0024 ohm/m
AWG	8	Dimensions	6.7mm x 13.6mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WH-3063	$7.00	$315.00	$262.00

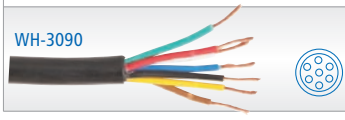
Trailer Cable - 10m Roll — 10 metre roll

A 10 metre length of standard 5 or 7 conductors sheathed in a tough black PVC jacket.
See page 238 or website for the conductor colours.

NEW 2013

RELATED PRODUCT...
See our full range of Trailer Pugs & sockets and other trailer accessories on page 238

WH-3090



	WH-3091	WH-3090
Rated Current:	5A per conductor	5A per conductor
Cores:	5	7
Total diameter:	6.3mm	8.2mm

	Cat.	1+ Rolls	4+ Rolls	10+ Rolls
5 Core	WH-3091	$24.95	$22.50	$19.95
7 Core	WH-3090	$34.95	$31.45	$27.95

AC MAINS CABLE

Two Core Mains Flex — 100 metre roll

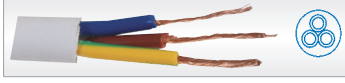
Two-core mains flex cable (no earth) with a white outer PVC jacket. Suitable for general 240V work not requiring an earth.

Conductor Area	0.75mm²
Current	7.5A
Safety Approval Number: Q080451	

	Approvals	Cat.	Per Metre	1+ Rolls	5+ Rolls
7.5A	Q080451	WB-1560	$1.10	$90.00	$80.00

Three Core Mains Flex — 100 metre roll

Standard 240V 3 core mains flex power cable with a white outer PVC jacket. Suitable for extension cables and general 240V work where an earth is required.

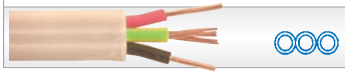


Conductor Area	1.0mm²
Current	10A
Safety Approval Number: Q080451	

	Approvals	Cat.	Per Metre	1+ Rolls	5+ Rolls
10A	Q080451	WB-1562	$2.50	$200.00	$175.00

Twin / Earth Wiring - Lighting — 100 metre roll

Twin Earth Flat Cable



Conductor Area	0.75mm²
Current	7.5A

	Cat.	Per Metre	1+ Rolls	5+ Rolls
7.5A	WB-1565	$2.50	$205.00	$185.00

Twin / Earth Wiring - Power — 100 metre roll

Twin Earth Flat Cable

Conductor Area	2.5mm²
Current	20A
Stranding	7/0.67

	Cat.	Per Metre	1+ Rolls	5+ Rolls
20A	WB-1568	$3.95	$330.00	$275.00

SOLAR SYSTEM CABLE

UV Stabilised Solar Power Cable — 100 metre roll

Very tough cable, specifically for the rigours of outdoor use in solar panel installations. Dust, age and UV resistant, tinned copper conductors to minimise corrosion.
Use with our PV connectors for complete environmental protection.

TÜV CERTIFIED

RELATED PRODUCT...
See page 323 for Solar Connectors

WH-3120

WH-3121

WH-3122

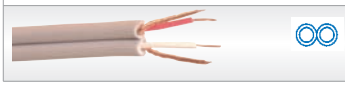
	Cat. No	Conductor Area	Rated current
Three types available:	WH-3120	2.5mm².	42A
	WH-3121	4mm²	58A
	WH-3122	6mm²	76A
Conductor material:	Tin plate copper, Class 5		
Insulation material:	XLPO		
Rated voltage:	1000VDC		
Temperature range:	-40 to - 125°C		
TUV certification:	2 PfG 1161/01.06		
IP65 rated			

	Cat.	Per Metre	1+ Rolls	5+ Rolls
100m x 2.5mm²	WH-3120	$3.00	$250.00	$225.00
100m x 4.0mm²	WH-3121	$3.50	$295.00	$265.00
100m x 6.0mm²	WH-3122	$5.50	$460.00	$415.00

SCREENED AUDIO & VIDEO CABLE

Figure 8 Twin Screened — 100 metre roll

Twin grey PVC covered individually screened conductors. Screens electrically separated.



Conductor Dia.	0.32mm x 2	**Stranding**	28 x 0.12mm	(PVC + 7 x 0.12mm OFC) x 2
Conductor mm²	0.08mm² x 2	**Insulation**	PVC	
AWG	28 x 2	**Resistance (20˚C)**	0.2245 ohm/m	
Max Temp.	70˚C	**Dimensions.**	2.8mm x 5.6mm	

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1502	$1.00	$85.00	$65.00

Single Screened Audio — 100 metre roll

Single screened grey PVC covered, light duty cable. Ideal for patch cords, small microphones, amplifier wiring, etc.

Conductor Dia.	0.32mm x 2	**Stranding**	28 x 0.12mm	(PVC + 7 x 0.12mm OFC)
Conductor mm²	0.08mm² x 2	**Insulation**	PVC	
AWG	28 x 2	**Resistance (20˚C)**	0.2245 ohm/m	
Max Temp.	70˚C	**Overall dia.**	3mm	

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1500	$0.55	$45.00	$35.00

Single Core OFC Screened — 100 metre roll

High quality OFC mono audio cable, double screened for extra shielding. Ideal for making your own RCA leads.

Conductor/Insul:	OFC/PPE	**Impedance:**	65Ω@1m
Braid:	96/0.10 + Alum	**Stranding:**	45/0.12mm
Capacitance:	66.8pF/m	**Conductor Resis:**	0.0365Ω/M
AWG	22		

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1508	$2.35	$195.00	$170.00

2 Core Round — 100 metre roll

Twin screened pair (not balanced). Enclosed in a thick wall PVC jacket. 0.127/7 + 0.12/40

Conductor Dia.	0.32mm x 2	**Stranding**	40 x 0.12mm	(PVC + 7 x 0.12mm OFC) x 2
Conductor mm²	0.08mm² x 2	**Insulation**	PVC	
AWG	28 x 2	**Resistance (20˚C)**	0.002245ohm/m	
Max Temp.	70˚C	**Overall dia.**	3.5mm	

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1504	$0.90	$67.00	$55.00

4 Core Round — 100 metre roll

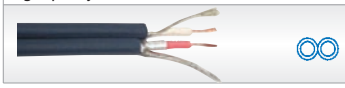
4 conductors each screened and encased in one PVC covering. Ideal for DIN plug and socket wiring. Screens electrically common to all conductors

Conductor Dia.	0.32mm x 4	**Stranding**	28 x 0.12mm	(PVC + 7 x 0.12mm OFC) x 4
Conductor mm²	0.08mm² x 4	**Insulation**	PVC	
AWG	28 x 4	**Resistance (20˚C)**	0.2245 ohm/m	
Max Temp.	70˚C	**Overall dia.**	4.5mm	

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1510	$1.30	$105.00	$80.00

Figure 8 OFC Screened Audio — 40 metre roll

High quality audio cable. As used on our best leads.



Inner conductor:	0.12mm OFC	**Screen:**	14mm aluminium foil longitudal wrapped shield
Braid:	0.12mm/6 x 16 tinned OFC copper	**Outer dia/Insulator:**	6mm / FPE Red & White
AWG	23		

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1506	$3.60	$120.00	$100.00

Figure 8 OFC Double Screened + Central Lead Wire — 100 metre roll

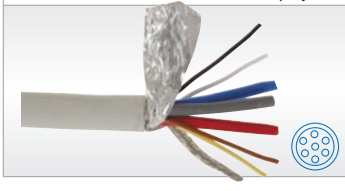
Ideal for running audio line level cables from one end of the car to the other. The double screens just about eliminate all interference.
The central lead wire is used to remotely turn amplifiers on.

Size	12 x 5mm	**Braid:**	16 x 6/0.12mm	**Impedance:**	65Ω @ 1MHz.
Conductor / Ins:	OFC/PPE	**Cond Resis:**	0.0366Ω/m@20°C		
Stranding:	45/0.12mm	**Capcitance:**	67.0pF/m		
AWG	20	**Colour**	Red		

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1509	$3.30	$260.00	$230.00

Professional VGA Cable — 30 metre roll

VGA cable suitable for installations of projectors, TVs or monitors in AV rooms, computer, conference or training rooms etc. Intended to be used with VGA Wall Plate Cat. PT-0476.



RGB Conductors:		**Sync / other conductors:**	7 x 0.2mm tinned copper	**Braiding:**	92 x 0.12mm tinned copper
Center Conductor:	7 x 0.127mm tinned copper	**Jacket:**	1.1mm PVC	**Jacket:**	7.8mm PVC UL94 VW-1
Dielectric:	1.60mm foam PE	**Shielding:**		**AWG**	28
Braiding:	40x0.12mm tinned copper	**Screen:**	30 x 0.03mm Al foil		
Jacket:	2.5mm PVC	**Drain:**	7 x 0.2mm tinned copper		

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1572	$79.95	$71.95	$61.95

Professional RGB Video Cable — 50 metre roll

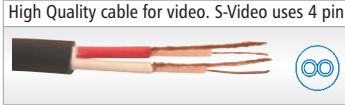
This is a RGB video cable with 3 screened cables for red, green and blue video. Inside cable insulation is colour coded and suitable for video signals. Each cable is 6mm diameter. Individual conductors can be split and used for individual composite video signals if required.

Inner Cond:	0.12mm OFC	**Insulator:**	3.1mm FPE coloured	
Screen:	14mm alumin foil	**Braid:**	0.12mm/6 x 16 tinned OFC	
Jacket:	PVC 6 x 18mm	**Capacitance:**	75pF/m between conductor & screen	
AWG	23			

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1559	$5.15	$215.00	$180.00

Professional S-Video — 100 metre roll

High Quality cable for video. S-Video uses 4 pin mini DIN plugs. This is the same cable as used in our S-Video video cables. Ideal for home cinema.



Insulator:	1.5mm FPE white	**Screen:**	0.1mm x 46 OFC spiral
Outer Jacket:	PVC 6.5 dia non migration	**Capacitance:**	85 pF/m between conductor and shield
Inner conduct:	0.12mm x 7 OFC	**AWG**	28

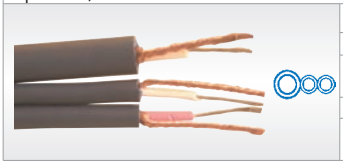
Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1556	$1.75	$140.00	$120.00

Signal & Speaker Cable

SCREENED AUDIO & VIDEO CABLE (CONTINUED)

Professional Audio & Video — 50 metre roll

Triple cable, 2 for audio and the thicker one for video. It is the same cable that's used in our 3 RCA to 3 RCA pre-made cables. 2 Audio Cables.



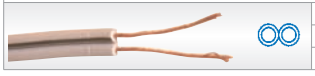
2 Audio Cables		Video Cable			
Inner con:	20 x 0.12mm OFC	Inner con:	24 x 0.12mm OFC	AWG	24
Insulator:	1.6mm FPE Red/White	Insulator:	2.5mm FPE White		
Screen:	40 x 0.12mm OFC	Screen:	4x16 x 0.12mm OFC		
Jacket:	PVC 3.6mm dia non migration	Jacket:	PVC 6mm dia non migration		

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1554	$3.50	$130.00	$105.00

SPEAKER FLEX

Light Duty Figure 8 14/0.14mm OFC — 100 metre roll

Ideal for Hi-Fi systems, intercoms, etc. Grey with black trace.



Conductor diameter	0.51mm x 2	Stranding	(14 x 0.14mm OFC) x 2
Conductor mm²	0.215mm² x 2	Insulation	PVC
AWG	24 x 2	Dimensions	1.8mm x 3.6mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1702	$0.50	$40.00	$35.00

Regular Duty Figure 8 14/0.20mm OFC — 100 metre roll

Clear with white trace.

Conductor diameter	0.74mm x 2	Stranding	(14 x 0.2mm OFC) x 2
Conductor mm²	0.44mm²	Insulation	PVC
AWG	21 x 2	Dimensions	2mm x 4mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1704	$0.70	$55.00	$45.00

Medium Duty Figure 8 19/0.18mm OFC — 100 metre roll

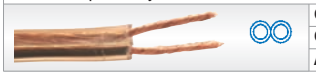
Suited to amplifiers up to 150 watts. 19 x 0.18mm. Black with white trace.

Conductor diameter	0.8mm x 2	Stranding	(19 x 0.18mm OFC) x 2
Conductor mm²	0.483mm² x 2	Insulation	PVC
AWG	20 x 2	Dimensions	2.6mm x 5.2mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1706	$0.80	$67.00	$60.00

Heavy Duty Figure 8 24/0.20mm OFC — 100 metre roll

Suited for speaker systems above 150 watts. 24/0.2mm. Clear with black trace.

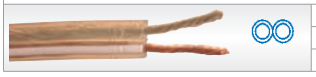


Conductor diameter	0.97mm x 2	Stranding	(24 x 0.2mm OFC) x 2
Conductor mm²	0.75mm² x 2	Insulation	PVC
AWG	18/19 x 2	Dimensions	2.8mm x 5.6mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1708	$0.90	$70.00	$60.00

Extra Heavy Duty Figure 8 41/0.20mm OFC — 100 metre roll

Clear with white trace.



Conductor diameter	1.29mm x 2	Stranding	(41 x 0.2mm OFC) x 2
Conductor mm²	1.288mm² x 2	Insulation	PVC
AWG	16 x 2	Dimensions	3.2mm x 6.4mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1710	$1.75	$150.00	$105.00

Extra Heavy Duty Figure 8 79/0.20mm OFC — 100 metre roll

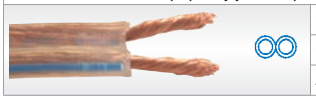
Exactly half the wire content of the Jumbo cable but still 3 times thicker than the heavy duty cable.
Clear with white trace.

Conductor diameter	1.8mm x 2	Stranding	(79 x 0.2mm OFC) x 2
Conductor mm²	2.5mm² x 2	Insulation	PVC
AWG	13 x 2	Dimensions	Check website

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1712	$2.50	$205.00	$160.00

Jumbo Speaker Cable - 259/0.12mm OFC — 100 metre roll

For those who want top quality jumbo speaker cable. Figure 8, 259/0.12mm strands in each side. Clear with blue trace.



Conductor diameter	1.92mm x 2	Stranding	(259 x 0.12mm OFC) x 2
Conductor mm²	2.93mm² x 2	Insulation	PVC
AWG	12/13 x 2	Dimensions	4mm x 8mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1732	$4.10	$340.00	$295.00

Flat Jumbo Speaker Cable - 203/0.12mm OFC — 100 metre roll

Ideal for car stereo or home wiring under the carpet. Clear with white trace.

Conductor diameter	1.7mm x 2	Stranding	(203 x 0.12mm OFC) x 2
Conductor mm²	2.3mm² x 2	Insulation	PVC
AWG	13/14 x 2	Dimensions	12.5mm x 8.5mm

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1740	$2.95	$240.00	$200.00

SMALL ROLLS SPEAKER FLEX

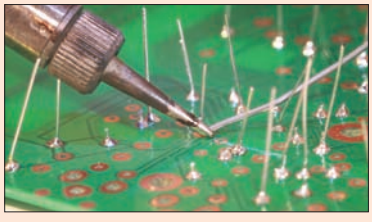
Light Duty Figure 8 — 30 metre roll

14/0.14mm Figure 8.Grey with black trace.

AWG 24 x 2

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1703	$12.95	$11.35	$9.65

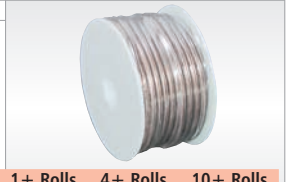
DON'T JUST
SIT THERE,
BUILD SOMETHING!



Heavy Duty Figure 8 — 30 metre roll

24/0.20mm Figure 8 clear with black trace.

AWG 18 x 2



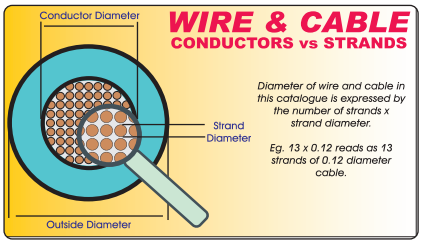
Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1709	$24.95	$22.35	$19.00

Extra Heavy Duty Figure 8 — 30 metre roll

79/0.2mm.figure 8. Clear with white trace.

AWG 13 x 2

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1713	$64.95	$58.50	$52.50



SPEAKER FLEX (CONTINUED)

Pro Audio Speaker Cable — 100 metre roll

Super flexible speaker cable. Separate colour-coded 18AWG red and black conductors in a single outer sheath. Conductors: 41 x 0.16 OFC. Jacket OD: 6mm

AWG	18

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1754	$1.70	$140.00	$110.00

Core Pro Audio Speaker Cable — 100 metre roll

Super flexible for stage and professional applications. Four core OFC colour coded conductors. Conductors: 40 x 0.16mm OFC. Jacket OD: 7.5mm

AWG	18

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1762	$3.40	$280.00	$215.00

PROFESSIONAL MICROPHONE CABLE

The best quality microphone cable for all P.A. and stage use. • Flexible black matt finish PVC low noise cable with tinned copper screening.

2 Core Screened — 100 metre roll

High quality mic cable for PA, stage or semi professional use. 60/0.08 x 2 core. Conductive PE insulation on conductors provides improved shielding. Cotton filled and tissue wrapped. Braided Shield: 16 x 9/0.10 tinned copper (144/0.10). Outer Jacket 6.0mm diameter

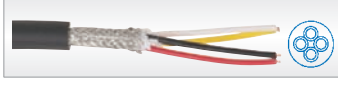
AWG	18

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1530	$2.50	$205.00	$160.00

4 Core Screened — 100 metre roll

Conductors: 26/0.10 x 4. Conductive PE insulation on conductors provides improved shielding. cotton filled and tissue wrapped. Braided shield: 16 x 8/0.10 tinned copper (128/0.10). Outer Jacket 6.0mm diameter



AWG	22

RESPONSE

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1540	$2.70	$215.00	$185.00

75 OHM COAXIAL TELEVISION CABLE

RELATED PRODUCT...
See CCTV cable WB-2017 on page 121.

Belden Brand 75 Ohm Domestic TV Coax — 152 metre roll

This is RG59 with an OD of 6mm. Belden No. 9275.

Inductance	.097uH / 300mm
Capacitance	16.2pF / 300mm
Attenuation	100MHz - 2.6dB / 30mt, 300Mhz - 4.45dB / 30m, 600Mhz - 6.20dB / 30m.

Belden

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2002	$0.90	$114.00	$89.90

75 Ohm RG59 Gas Injected Foam Coax — 100 metre roll

New generation TV Coax. Both a braid & foil, provides 100% screening.

- Won't get water logged underground.
- Black in colour.
- Outside diameter 6mm.

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2004	$0.70	$55.00	$45.00

75 Ohm RG59 Gas Injected Foam Coax — 30 metre roll

A 30m roll is generally a common length for a domestic TV antenna installation.

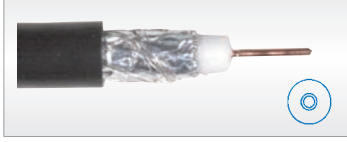
Save over buying by the metre, and a small roll is easy to work with.

- Black WB-2005
- White WB-2001

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-2005	$19.95	$17.95	$16.20
WB-2001	$21.95	$19.75	$17.75

RG6 Quad Shield 75 Ohm Coax — 100 metre roll

Features a solid 18AWG copper clad steel centre conductor, gas injected foam dielectric and four separate shielding layers to eliminate any outside interference.



Centre Conductor:	18AWG copper clad steel	First shielding:	Bonded aluminium polyester tape
Core O.D:	4.57mm	Second shielding:	tinned annealed copper
Jacket O.D:	7.7mm	Nom. Impedance:	75Ω
AUSTAR approval #:	A00458	TELSTRA approval #:	014857
Foxtel approval #:	F 30440	OPTUS approval #:	SAP4868

TECH TIP!
FOXTEL APPROVED

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2006	$1.20	$80.00	$65.00

Comms Cable

75 OHM COAXIAL TELEVISION CABLE (CONTINUED)

Belden Brand Quad Shield RG6 75 Ohm Coax — 100 metre roll

Used by Pay-TV installers. Quality U.S made Belden brand. We have repackaged in Australia on 100m reels. Normally this is only available in 1000 feet boxes. It features a solid 18AWG steel centre conductor, copper plated, gas injected polyethylene foam insulation (to keep water out), Black PVC jacket, plus 4 layers of screening: a combination of aluminium foils and braiding. 100% sweep tested 5MHz-1GHz.

Belden part:	1189A	**Jacket O.D:**	7.569mm	**Nom. Imped:**	75Ω
Centre conduct:	18AWG steel Cu plated 1.016 dia	**Vel. of prop:**	82%, 53.1pF/m		
Core O.D:	4.572mm	**Nom. Capacit:**	16.2pF/ft		
Austar / Foxtel approval #:	F 30456				

TECH TIP! FOXTEL APPROVED

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2009	$1.80	$100.00	$85.00

Belden Brand Quad Shield RG6 75 Ohm Coax — 30 metre roll

30m roll of the WB-2009 Belden Coax shown above.

AWG	18
Austar / Foxtel approval #:	F 30456

TECH TIP!
We do not sell cheap 3C-2V type TV coax. It's screening is inadequate for acceptable performance IN TODAY'S DIGITAL TV ENVIRONMENT

TECH TIP! FOXTEL APPROVED

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-2014	$44.95	$40.45	$34.50

COMMUNICATION & TELEPHONE CABLE

50 Ohm RG58 C/U Networking — 100 metre roll

As used for computer networking.

Conductors:	19/0.18 + 112/0.12mm.	
AWG	23	
OD 5mm.		

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2012	$1.95	$165.00	$135.00

50 Ohm RG58/U — 100 metre roll

Suited up to 500MHz.

Ideal for CB , marine, amateur and two-way radio.		
AWG	23	

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2010	$1.45	$120.00	$100.00

50 Ohm RG213/U — 100 metre roll

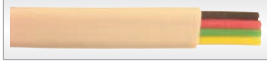
Communication cable commonly used in UHF.

Conductors: 7/0.75 + 216/0.12mm	
AWG	23

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2015	$3.80	$280.00	$230.00

2 Pair (4 Wire) — 100 metre roll

Flat cable. Ivory colour, 4 x 7 x 0.12mm



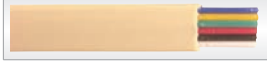
AWG	28

ACMA Approved

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1620	$0.60	$45.00	$35.00

3 Pair (6 Wire) — 100 metre roll

Flat cable. Ivory colour, 6 x 7 x 0.12mm



AWG	28

ACMA Approved

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1622	$0.80	$55.00	$45.00

COMPUTER / DATA CABLE

50 Ohm RG174U Coax Cable — 20 metre roll

Handy 20m length of unterminated RG174/U cable as commonly used in Wi-Fi and amateur radio installations.

Impedance:	50 ohm	Tinned copper braid.
Insulation:	Polyethylene (PE)	RG174/U
AWG	28	

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-2018	$19.95	$17.75	$15.95

Computer — 100 metre roll

All are screened to stop RFI.

6 Way 9 Way

6 Way		**AWG**	28
7/0.12 x 6C + foil + 7/0.16 OD 5mm			
9 Way			
7/0.12 x 9C + foil + 7/0.16 OD 5mm			

	Cat.	Per Metre	1+ Rolls	5+ Rolls
6 Way	WB-1575	$1.65	$130.00	$115.00
9 Way	WB-1578	$1.90	$150.00	$130.00

IDC Ribbon — 33 metre roll

Designed for IDC connectors.	**AWG**	28
Grey in colour with red trace.		

	Cat.	Per Metre	1+ Rolls	5+ Rolls
16 Way	WM-4502	$1.85	$48.00	$41.00
26 Way	WM-4504	$2.60	$69.00	$59.00
50 Way	WM-4508	$5.10	$140.00	$119.00

COMPUTER / DATA CABLE (CONTINUED)

Rainbow Cable 16 Core — 33 metre roll

Colour coded strands of insulated conductor bonded together in a flat cable. Ideal for rewiring looms, can be split and each individual wire used.

Same rating as 13 x 0.12mm light duty hook-up wire.

AWG	25

Cat.	Per Metre	1+ Rolls	5+ Rolls
WM-4516	$3.30	$90.00	$76.00

Cat 5e 8 Core Stranded Network — 100 metre roll

An ACMA approved high quality cable for patch leads and short runs.

Consists of 4 twisted pairs, each conductor 7/0.20mm copper wire, polypropylene insulated with a tough ivory colour PVC jacket.
100MHz.

AWG	24

ACMA Approved

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2020	$1.35	$110.00	$80.00

Cat 5e Solid Network — 100 metre roll

Single strand Cat 5e, used for long runs in permanent installations.

A Tick approved. Blue in colour. 100MHz.

AWG	24

ACMA Approved

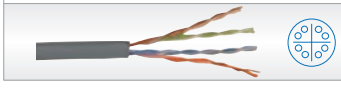
Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2022	$1.15	$95.00	$75.00

POLYWRAPPED ROLL 30 METRE PACK - NO ROLL

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-2023	$32.95	$29.45	$26.50

Cat 6 Solid Core UTP Network — 100 metre roll

Designed for reliable high-speed network installations. Suitable for IDC terminations on patch panels and wall plates



4 x 23 AWG solid core twisted pairs
PVC spline

AWG	23

ACMA Approved

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2030	$1.65	$140.00	$110.00

Optical Fibre — 4 metre roll

Optical fibre cable is ideal for communication, industrial or decorative use. Length is 4 metres.

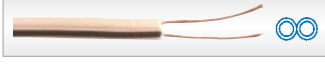
Attenuation is 400dB per kilometre @ 650nm.
Outside diameter is 2mm.
Jacket colour is black.

Cat.	1+ Rolls	5+ Rolls	10+ Rolls
WO-4360	$24.50	$21.95	$19.00

INTERCOM / ALARM / CCTV CABLE

Bell Wire — 100 metre roll

Ideal for doorbells, intercoms, or anywhere where a really thin figure 8 cable is required. 7/0.10mm x 2



AWG	30

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1700	$0.15	$12.00	$9.00

Alarm - 4 Core — 100 metre roll

Flexible stranded conductors, 7 x 0.18 in tough outer sheath.

AWG	25

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1590	$0.80	$65.00	$45.00

Alarm - 6 Core A-Tick Approved — 100 metre roll

Austel approved alarm cable. Use with alarms that have diallers. 6 x 7/0.2 flexible stranded conductors in tough outer sheath. OD 5mm. Colour white

AWG	24

ACMA Approved

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-1598	$1.15	$90.00	$75.00

Alarm Cable - 30m Roll — 30 metre roll

7 x 0.18mm
4 core

AWG: 25

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1591	$22.95	$20.35	$17.50

Alarm Cable 30m Roll A-Tick Approved — 30 metre roll

Austel approved. For use in alarms with diallers. 6 x 7/0.2 flexible stranded conductors in tough outer sheath.

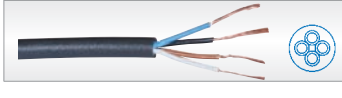
AWG: 24

ACMA Approved

Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1596	$32.95	$29.45	$25.00

4-Core Sensor Cable — 100 metre roll

4 core colour coded, suitable for industrial sensor wiring. 4 x 0.34mm sq, 7mm PVC sheath.



Sheath:	Black PUR, V90 flame retardant.
Conductor:	Plain copper wire
Insulation:	V75
AWG	24

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2050	$6.50	$530.00	$445.00

RG59 / Power Cable — 100 metre roll

Combines RG59 coaxial cable and 16G power cable. Ideal for CCTV and surveillance applications.

OD:	10 x 7.5mm
Colour:	Black
AWG:	24

Cat.	Per Metre	1+ Rolls	5+ Rolls
WB-2017	$1.40	$110.00	$95.00

HEATSHRINK

Heatshrink Tubing

Our heatshrink is flexible and made from flame-resistant polyolefin.
- Made to UL224 E180908 125°C.
- Shrinks to 50% of its size.
- Shrink with a heatgun, hairdryer or a gas burner, match etc.
- Length is 1.2 metres.

All sizes are 1.2 metre lengths

TECH TIP! ALL SIZES 1.2 METRE LENGTHS

LIFETIME GUARANTEE

RoHS COMPLIANT

* Clear heatshrink not halogen free.

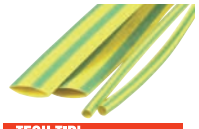
Dia(mm)	Green	Black	Red	Clear	Blue	White	Yellow	Qty 1+	Qty 4+	Qty 10+
1.5	WH-5510	WH-5530	WH-5540	WH-5550*	WH-5560	WH-5570	WH-5590	$1.45	$1.30	$1.15
2.5	WH-5511	WH-5531	WH-5541	WH-5551*	WH-5561	WH-5571	WH-5591	$1.65	$1.45	$1.30
3.0	WH-5512	WH-5532	WH-5542	WH-5552*	WH-5562	WH-5572	WH-5592	$1.85	$1.65	$1.45
5.0	WH-5513	WH-5533	WH-5543	WH-5553*	WH-5563	WH-5573	WH-5593	$1.95	$1.75	$1.55
6.0	WH-5514	WH-5534	WH-5544	WH-5554*	WH-5564	WH-5574	WH-5594	$2.25	$1.95	$1.80
10	WH-5515	WH-5535	WH-5545	WH-5555*	WH-5565	WH-5575	WH-5595	$2.95	$2.60	$2.30
16	WH-5516	WH-5536	WH-5546	WH-5556*	WH-5566	WH-5576	WH-5596	$3.95	$3.45	$3.15
20	WH-5517	WH-5537	WH-5547	WH-5557*	WH-5567	WH-5577	WH-5597	$5.75	$4.95	$4.60

TECH TIP! 2:1 SHRINK RATIO HALOGEN FREE

Yellow & Green Heatshrink Tubing

- 1.2m lengths
- Ideal for indicating earth connections.

TECH TIP! 2:1 SHRINK RATIO



TECH TIP! Abrasion Resistant & Flame Retardant

	Cat	Qty 1+	Qty 4+	Qty 10+
3mm	WH-5610	$2.95	$2.60	$2.30
10mm	WH-5612	$3.95	$3.45	$3.15

Heat Shrinkable Braided Sleeving

Used to provide added protection to cables against flames and abrasion. Consists of polyester multifilament and special modified polyolefin filament, which will shrink when expose to a heat source (Heat gun recommended). The unique woven construction makes it extremely flexible and easy to install on the hoses with irregular shapes.

- Operating range -40°C to 125°C
- Minimum shrink temperature: 80°C
- Minimum fully recovery temperature: 120°C
- Flammability: self-extinguishing
- Shrinking ratio: 2:1
- Approved: RoHS, Halogen Free
- Shrink ratio: 2:1
- Length: 1.2m

NEW 2013

	Cat.	Qty 1+	Qty 4+	Qty 10+
10mm x 1.2m	WH-5620	$3.95	$3.45	$3.15
20mm x 1.2m	WH-5622	$4.95	$4.45	$3.90
25mm x 1.2m	WH-5624	$5.95	$5.25	$4.75
30mm x 1.2m	WH-5626	$6.95	$6.25	$5.50

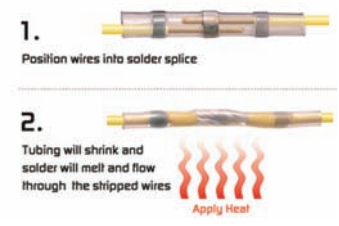
Heatshrink Tube 50mm Black

Ideal for bundling battery packs, but also used for grips on kayak paddles etc. 2:1 shrink rate. Supplied in 300mm lengths.

Size (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
50	WH-5582	$3.95	$3.45	$3.15

Solder Splice Heat Shrink Tube - Pack of 5

Solder splice heat shrink tubes allow you to quickly join two cables thanks to the small section of solder in the middle of the tube. Simply slide a tube over the join in two cables and heat as you would any other shrink tube. As the tube shrinks the solder melts to electrically connect the wires resulting in a join which is reliable and well insulated. Available in three sizes approximately 40mm in length with 5 pieces per pack. Shrink ratio 2:1.



Diameter (mm)	Pk	Cat.	Qty 1+	Qty 4+	Qty 10+
2.7	5	WH-5670	$4.95	$4.45	$3.90
4.5	5	WH-5671	$4.95	$4.45	$3.90
6.0	5	WH-5672	$4.95	$4.45	$3.90

Heatshrink Tape - Black

Ideal for emergency repairs or when you aren't able to use a piece of tubing. It conforms to odd shapes that heatshrink tubing is unable to, and has a low melting point adhesive for easy installation. It also remains flexible at extremely low temperatures. Keep a roll in the toolie.

- Operating temperature: -40 - 105°C
- Shrink temperature: 125°C
- 25mm wide x 5m roll

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WH-5659	$12.95	$11.35	$10.35

Comprehensive Heatshrink Pack

- 1 length each of 7 different colours in 7 different sizes ranging from 1.5mm diameter to 20mm.
- Sizes: 1.5, 3, 5, 6, 10, 16 & 20mm.

Note: Clear is NOT halogen Free

RoHS COMPLIANT

TECH TIP! 2:1 SHRINK RATIO HALOGEN FREE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WH-5520	$14.50	$12.95	$11.35

Handy Heatshrink Pack

Handy assortment of our high quality heatshrink tubing. Sizes from 1.5mm to 10mm.

- 10 pieces in all of 300 & 150mm length.
- Colour Red & Black

TECH TIP! 2:1 SHRINK RATIO HALOGEN FREE

RoHS COMPLIANT

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WH-5525	$7.95	$6.95	$6.25

CABLE SLEEVING & WRAP

Expandable PPS Sleeving

This PPS (Polyphenylene Sulfide) monofilament sleeving is ideal in high temperature environments and offers a lightweight mechanical protection to your cabling. The construction expands up to 3 times to allow easy insertions of cables and reverts back to original diameter for a snug fitment. The open weave design also dissipates heat and doesn't trap moisture.

- Material: Polyphenylene Sulfide (PPS) monofilament UL94 V-0
- Colour: Black
- Length: 2m

NEW 2013

	Cat.	Qty 1+	Qty 4+	Qty 10+
3mm x 2m	WH-5584	$2.50	$2.21	$1.95
6mm x 2m	WH-5585	$2.95	$2.60	$2.30
10mm x 2m	WH-5587	$3.95	$3.45	$3.15
15mm x 2m	WH-5588	$7.95	$6.95	$6.25

Self-Closing Braided Wrap

Protect cabling neat and tidy, and protected from abrasion, wear and tear using this flame resistant self closing wrap. Each 2m length is flexible and lightweight, and the open structure allows it to be easily installed without having to remove connectors or terminals.

- Material: PET Polyethylene Terephthalate
- Operating range: -50°C to +150°C
- Melt point: 250°C @ 5°C
- Flammability: VW-1
- Certificate: RoHS, Halogen Free
- Cutting tool: Hot knife
- Colour: Black
- Length: 2m

NEW 2013

	Cat.	Qty 1+	Qty 4+	Qty 10+
6mm x 2m	WH-5630	$6.95	$6.25	$5.50
9mm x 2m	WH-5632	$7.95	$6.95	$6.25
13mm x 2m	WH-5634	$9.95	$8.75	$7.75
19mm x 2m	WH-5636	$12.95	$11.35	$10.35

HEATSHRINK (CONTINUED)

Heatshrink Tubing with Glue Lining 4:1

The heat sensitive glue on the internal wall of the tube melts when heat is applied, allowing for a professional water and dust resistant seal.

- Black in colour and sold in 1.2m lengths
- 4:1 shrink ratio.

Size (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
4	WH-5640	$4.95	$4.45	$3.90
6	WH-5641	$5.65	$4.95	$4.45
8	WH-5642	$6.45	$5.75	$4.95
12	WH-5643	$7.45	$6.50	$5.75
16	WH-5644	$7.95	$6.95	$6.25
19	WH-5645	$11.95	$10.70	$9.50
24	WH-5646	$12.95	$11.35	$10.35

Glue Lined Pre-cut Heatshrink Tubing - Trade Pack

A box of six common sizes of 95mm long glue lined heatshrink. Includes 20 pcs 4.0mm, 15pcs 6.0mm, 10pcs 8.0mm, 5pcs 12mm, 5pcs 16mm, & 5pcs 19mm - 60pcs total.

This is an economical way to get this product.

- Supplied in a see-thru nylon snap shut case
- Box measures: 205(W) x 108(D) x 35(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
WH-5521	$29.95	$26.90	$23.70

Heatshrink Assortment Trade Pack

All the heatshrink the technician, tradesman or serious hobby user will ever need. The pack contains 160 lengths of different sizes in a handy storage case.

- 1.5mm: 40 x black, 10 x red, 10 x clear
- 2.5mm: 25 x black, 5 x red, 5 x clear
- 3mm: 17 x black, 4 x red, 4 x clear
- 5mm: 14 x black, 3 x red, 3 x clear
- 6mm: 6 x black, 2 x red, 2 x clear
- 10mm: 6 x black, 2 x red, 2 x clear
- Case size: 205(L) x 110(W) x 35(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
WH-5524	$19.95	$17.70	$15.70

PVC Spaghetti Tubing Pack - 12 piece

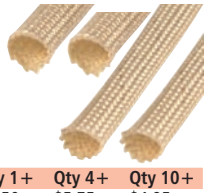
This sleeving is made from soft PVC. It does not shrink with heat. It is ideal for high-voltage protection of smaller wires, has abrasion resistance or you can bundle several smaller wires inside a length.

- 4 sizes - 1.5, 3.0, 5.0 & 10mm.
- Colours - black, red, yellow, white, clear & blue.
- All 300mm long.
- 85°C rated
- Note: colour quantities vary from pack to pack

MADE IN AUSTRALIA

Cat.	Qty 1+	Qty 4+	Qty 10+
WS-5502	$9.95	$8.75	$7.75

Vidaflex Fibreglass Heat Resistant Sleeving



A woven fibreglass product used where heat or abrasive resistance is needed for a "spaghetti" type insulation application. Supplied in most commonly used sizes.

- Thermal resistance to 450°C
- 1 metre per pack

Size (mm)	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2.5	1m	WS-5504	$6.50	$5.75	$4.95
3.5	1m	WS-5506	$8.50	$7.50	$6.75

WIRE GLUE

Wire Glue

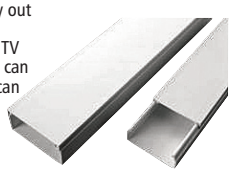
A soldering iron in a jar. Wire Glue is a electrically conductive adhesive that enables you to make solder-free connections when you don't have a soldering iron handy, or aren't able to apply heat for some reason. Hundreds of hobby, trade and electronics uses. Lead-free, cures overnight.

- 9ml

Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2831	$9.95	$8.75	$7.75

CONDUIT

Rectangular Cable Duct - 1m



Keep your home theatre cables under control and neatly out of the way. Available in two sizes and in convenient 1m lengths, the leads to your wall-mounted plasma or LCD TV will be kept bundled up but easily accessible. The cover can be quickly removed and replaced for maintenance and can be painted to match the colour of your wall.

- 25 x 16mm x 1m Cat HP-1330
- 50 x 25mm x 1m Cat HP-1332

Size	Cat.	Qty 1+	Qty 4+	Qty 10+
25 x 16mm	HP-1330	$6.95	$6.25	$5.50
50 x 25mm	HP-1332	$9.95	$8.75	$7.75

Floor or Wall Cable Ducting

This extruded ducting helps conceal messy cables across doorways, along skirting boards or walls. Great for offices or home. The ducting is 50.8mm wide and is sold in convenient 1.83m lengths.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
20	HP-1226	$15.95	$14.35	$12.70

Round Desk Grommet

No more tangled wires and cables! The desk grommet is the perfect way to easily and neatly store your power, communication, audio ,video, computer and data cables. It is ideal for installation in desks, workstation, telephones cabinets or entertainment unit. Simply drill or cut a 60mm hole through the surface and insert the grommet into the hole.

- Dimensions: 60mm (diameter)
- Black in colour

Cat.	Qty 1+	Qty 4+	Qty 10+
HP-1228	$9.95	$8.75	$7.75

CABLE DRAW TOOL

Wire Draw Fish Tape

A fish tape is a tool that's used to draw wire and cable through wall cavities or conduit. The smart way is with 30m of flat, rigid spring steel with a built-in cable eye on the end that rolls up into its own case after use. You can easily direct the rigid wire exactly where you need to. No electrician, data cable, antenna, home theatre or security installer should be without one.

- Length: 30m
- Dimensions: 305(Dia) x 38(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1869	$29.95	$27.95	$23.70

CABLE STAPLE GUN

Cable Staple Gun

Take the pain out of cable installation. Instead of trying to pound away with a hammer, simply staple the cable to eaves, rafters or joists. The staples have an integral plastic cable clamp that holds the cable firmly in place. The gun takes a variety of staples sizes to accommodate cables up to 8.0mm diameter.

- Includes gun, 2 interchangeable blades and 200 staples
- Refill staples available

	Pkt	Cat.	Qty 1+	Qty 3+	Qty 6+
Cable Gun		TH-2610	$19.95	$17.70	$15.70
Refill Staples 4-6mm	200	TH-2611	$9.95	$8.75	$7.75
Refill Staples 6-8mm	200	TH-2612	$9.95	$8.75	$7.75

Cable Accessories

CABLE ACCESSORIES

Dune Tube with Applicator - Black

Keep your cables neat and tidy. They are easily bent for corners and are slit so cables can enter or leave at any point. Simply slip in the cable, insert the applicator and slide away. Easier to use than Spiral Binding; more secure than Loom Tube!

- Made from black flexible plastic
  INCLUDES SPECIAL WIRE SHUTTLE.

Dia.	Length	Cat	Qty 1+	Qty 4+	Qty 10+
15mm	2.5m	HP-1235	$9.95	$8.75	$7.75
20mm	2.5m	HP-1237	$11.95	$10.70	$9.50
20mm	10m	HP-1239	$39.95	$35.90	$31.90

Spiral Binding

Keep wiring tidy! Available in 2 sizes and colours and is easily wrapped around bunches of cables to keep them tidy.

Dia.	Length	Cat	Qty 1+	Qty 4+	Qty 10+
6mm	2.5m	HP-1218	$6.15	$5.50	$4.90
12mm	1.5m	HP-1219	$6.15	$5.50	$4.90
6mm	2.5m	HP-1220	$6.15	$5.50	$4.90
12mm	1.5m	HP-1222	$6.15	$5.50	$4.90

Loom Tubes

Tidy up the cables behind your PC or audio equipment, secure cabling in your car. The Loom Tube will keep wiring in place and suits many types of applications. The tube has a slit so that cables can enter/leave at any point along its length.

- Made from black flexible PVC.
- Three diameters available: 7, 10 or 19mm
- Available in either 2m or 10m lengths - just cut to suit.
- Good abrasion resistance.

RELATED PRODUCT...
See previous page for Desk Grommets

Dia.	Length	Cat	Qty 1+	Qty 4+	Qty 10+
7mm	2m	HP-1221	$3.20	$2.83	$2.45
10mm	2m	HP-1224	$3.80	$3.30	$2.95
19mm	2m	HP-1227	$4.95	$4.45	$3.90
7mm	10m	HP-1223	$14.95	$13.35	$11.70
10mm	10m	HP-1225	$15.95	$14.35	$12.70
19mm	10m	HP-1229	$19.95	$17.70	$15.70

HOOK & LOOP CABLE TIES

Mixed Hook & Loop Cable Ties

Keep your cables neat and tidy.
Packet of 16 hook & loop cable ties in assorted sizes from 125 to 180mm.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pkt 16	HP-1232	$9.95	$8.75	$7.75

Hook & Loop Cable Ties

Tidy up behind the TV or audio equipment with these re-usable hook & loop cable ties. Each tie is 140mm in length.

Note: Lead not supplied.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pkt 5	HP-1210	$4.95	$4.45	$3.90

CABLE TIES

Plastic Cable Ties

- UV Resistant
- Black Nylon
- Safe edges

Length	Pack	Cat	Qty 1+	Qty 4+	Qty 10+
100mm	20	HP-1200	$1.85	$1.65	$1.45
150mm	15	HP-1201	$2.25	$1.95	$1.80
200mm	15	HP-1202	$2.50	$2.21	$1.95
300mm	15	HP-1245	$2.95	$2.60	$2.30
500mm	15	HP-1248	$5.95	$5.25	$4.75
605mm	15	HP-1249	$6.95	$6.25	$5.50
100mm	100	HP-1203	$4.95	$4.45	$3.90
150mm	100	HP-1204	$7.95	$6.95	$6.25
200mm	100	HP-1205	$10.95	$9.75	$8.75
300mm	100	HP-1246	$12.95	$11.35	$10.35
100mm	500	HP-1211	$17.95	$15.95	$14.35
150mm	500	HP-1212	$29.95	$26.90	$23.70
200mm	500	HP-1213	$39.95	$35.90	$31.90
300mm	500	HP-1247	$45.00	$40.45	$35.95

Extra Long Mixed Cable Tie Set

This handy cable tie set contains 70 black cable ties of various lengths up to 500mm.

- 10 pcs 500(L) x 10(W)mm
- 10 pcs 510(L) x 8(W)mm
- 20 pcs 400(L) x 5(W)mm
- 30 pcs 300(L) x 4(W)mm

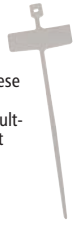
Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
70	HP-1209	$18.95	$16.95	$14.95

Coloured Cable Ties

Identify wiring looms with different coloured cable ties. Pack includes 25pcs each of red, yellow, green, blue and black. Total 125 cable ties. Length 100mm.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
25	HP-1196	$9.95	$8.75	$7.75

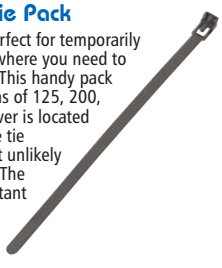
100mm Label Cable Ties



PACK OF 20
Ideal for large or complex wiring looms, these allow you to label cable bundles for identification later to make tracing or fault-finding easy. Easily marked with permanent marker or self-adhesive labels.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
20	HP-1244	$3.50	$3.15	$2.75

Releasable Cable Tie Pack



Releasable cable ties are perfect for temporarily securing cables or for jobs where you need to periodically change cables. This handy pack contains 10 pieces at lengths of 125, 200, and 300mm. The release lever is located below the head of the cable tie making it easy to access but unlikely to be released accidentally. The ties are made from UV resistant black nylon and have safe edges to prevent cuts.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-1217	$6.95	$6.25	$5.50

Cable Tie Tidy Kit

Consists of: 30 x 120mm cable ties, 20 x 120mm reusable cable ties, 10 x self adhesive cable tie mounts, 20 x saddle type cable tie mounts.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-1198	$9.95	$8.75	$7.75

Cable Tie Box - 400 pieces

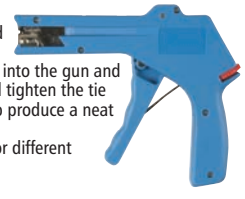
Let's face it, the mixed box of cable ties in all the colours of the rainbow is fine, however most of the time you only use about 2-3 different sizes and blacks the colour because of its UV stability. This is your box. This kit consists of: 100 pcs x 200mm, 100 pcs x 150mm, 200 pcs x 100mm.

All in a see through flat storage case that makes access to the ties easy. The box even has some compartment dividers included so that it becomes a parts storage box when all of the ties have been used up.

- Box measures; 250(W) x 180(D) x 40(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HP-1216	$19.95	$17.70	$15.70

Cable Tie Gun



Once you have wrapped the tie around the cable you simply slide the tail into the gun and pull the trigger. This will tighten the tie and cut off the excess to produce a neat and professional finish.

- Tension adjustment for different ties.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	TH-2600	$23.95	$21.35	$18.95

Silicone Rescue Tape

Rescue tape is a self-fusing tape made of the highest quality materials for a permanent air-tight and water-tight seal in emergency situations. Just wrap it around a troublesome leak and it will bond in seconds. The tighter you stretch the tape, the quicker it will bond. Brilliant!

TECH TIP!
You can repair a burst radiator hose with this!
WATCH VIDEO

- Resists fuels, oils, acids, solvents, salt water, road salt, UV rays
- Remains flexible to -60°C (-85° F)
- Operating temperature range: -65°C to 260°C / -85°F to 500°F
- Continuous temperature range: -60°C to 200°C / -76°F to 392°F
- Cold brittle point: -85° F / -65° C
- Tensile strength (Min.): 700 psi
- Elongation (Min.): 300%
- Tear strength (Min.): 85 ppi
- Bond strength (Min.): 2 Lbs
- Water absorption (Max.): 3% By Weight
- Dielectric strength (Min): 400 volts/mil (8,000 V/20 Mil)
- Measures 1" x 12 FT (Approx: 25.4mm x 3657.6mm)

RESCUE TAPE

	Cat.	Qty 1+
	NA-2829	$19.95

CABLE TIE MOUNTS

Concrete Cable Tie Mounts

Use these cable tie mounts in runs along walls and ceilings made of brick or concrete.

- UL 94V-2 approved Nylon.
- Hole required:
- Approx. 7mm dia x 37mm deep

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
20	HP-0795	$5.50	$4.90	$4.30
100	HP-0796	$23.50	$20.95	$18.70

Adhesive Cable Tie Mounts

These are used in conjunction with our cable ties. They simply stick to the surface, then the cable tie is looped through and around the cables.

- 21mm square.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
10	HP-1195	$4.50	$3.95	$3.60

Cordgrip Clamps

For cables 7.4mm - 8.2mm diameter, (3 wire mains).

- Panel cutout 14mm.
- Black nylon

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
4	HP-0716	$1.95	$1.75	$1.55

For cables 6.2mm - 7.4mm diameter.

- Panel cutout 11.5mm

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
4	HP-0718	$1.95	$1.75	$1.55

CABLE CONNECTORS

Crimp Wire Connectors

The easy way to connect 2 or 3 wires together. Simply insert into the connector, & squeeze with a pair of pliers. They are filled with sealant to provide moisture resistance. Accepts cable up to 2.08mm OD.

(6 x 2 WIRE) & (2 x 3 WIRE) CONNECTORS

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-1214	$4.95	$4.45	$3.90

2 WIRE CONNECTORS

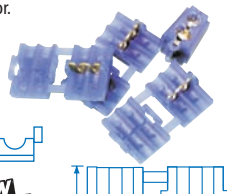
Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
50	HP-1270	$10.95	$9.75	$8.75

3 WIRE CONNECTORS

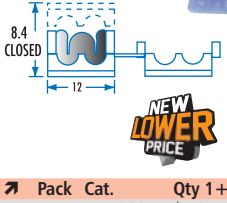
Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
50	HP-1272	$14.95	$13.35	$11.70

Contact Connectors

Simply wrap around the existing wire and new wire and squeeze. Connector cuts through insulation and makes contact without damaging the conductor.



- Fully insulated once on.



Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
4	HP-1206	$1.95	$1.75	$1.55

Quick Splice Connectors

Simply insert your wires and squeeze it closed to connect and crimp. Quick, easy, and secure. Nylon insulation rated to 105˚C

Cat.	ID	Type	Pkt
PT-4537	A	22-18AWG	6
PT-4637	B	16-14AWG	6
PT-4737	C	12-10AWG	6

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6	PT-4537	$2.75	$2.45	$2.15
6	PT-4637	$2.75	$2.45	$2.15
6	PT-4737	$2.75	$2.45	$2.15

RUBBER FEET

Small Stick On

Dimensions: 12 x 12mm

- Height 6mm
- Moulded in oil resistant synthetic rubber

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
4	HP-0815	$2.50	$2.21	$1.95
20	HP-0816	$7.95	$6.95	$6.25

Large Stick On

- Dimensions: 20 x 20mm
- Height 8mm
- Moulded in oil resistant synthetic rubber

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
4	HP-0825	$3.95	$3.45	$3.15
20	HP-0822	$9.95	$8.75	$7.75

Screw On Equipment Feet

- Silver in colour
- Screw on
- Pack of 4

HP-0830 - 30mm
HP-0832 - 50mm

Size mm	Cat.	Qty 1+	Qty 4+	Qty 10+
30	HP-0830	$6.95	$6.25	$5.50
50	HP-0832	$8.95	$7.95	$6.95

Screw Fixing Rubber Feet

Requires 3mm screw and nut.

- 11mm dia. x 7.5mm high
- Moulded in oil resistant synthetic rubber

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-0800	$4.50	$3.95	$3.60

RUBBER GROMMETS

Rubber Grommets

Suitable for use with chassis up to 16 gauge/1.5mm.

- Moulded in oil resistant synthetic rubber
- Black

CHASSIS HOLE 9.5MM. CABLE DIA 6MM.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-0702	$3.95	$3.45	$3.15

CHASSIS HOLE 12.7MM. CABLE DIA 9.5MM

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-0704	$4.65	$4.15	$3.60

CABLE GLANDS

IP68 Waterproof Cable Glands

These unique cable clamps incorporate a unique sealing mechanism which works on the camera shutter principle. Simply mount the clamp, insert the cable through and tighten up. There is no need to disassemble the clamp prior to installation. These clamps are rated to IP68. This is the highest rating possible. They are totally dust tight and protected against submersion in water.

- Trapezoidal thread for quick high torque tightening
- No throwaway "O" rings
- Long metric thread
- Superior strain relief
- UL Approved NYLON 94V-2

3 - 6.5MM DIA CABLE Thread EG-7

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0720	$4.95	$4.45	$3.90

4 - 8MM DIA CABLE Thread EG-9

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0724	$5.45	$4.90	$4.30

5 - 10MM DIA CABLE Thread EG-11

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0727	$5.95	$5.25	$4.75

6 - 12MM DIA CABLE Thread EG-13.5

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0732	$6.45	$5.75	$4.95

10 - 14MM DIA CABLE Thread EG-16

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0736	$6.95	$6.25	$5.50

13 - 18MM DIA CABLE Thread EG-21

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HP-0740	$7.95	$6.95	$6.25

IP68 Nickel Plated Brass Cable Glands

These nickel-plated brass cable glands are certified to IP68 and provide superior grip and sealing. They are totally protected and O-ring sealed against the ingress of dust, moisture and water to a depth of one metre. The unique design speeds installation and eliminates the need to disassemble the gland before fitting. A self-adjusting cable seal allows the glands to be used on a wide range of cable sizes and minimises inventory holdings. These glands are supplied complete with seals and locknuts.
5 sizes are available.

Cat.	Cable Size
HP-0744	3 to 6.5mm
HP-0745	4 to 8mm
HP-0746	5 to 10mm
HP-0747	6 to 12mm
HP-0748	10 to 14 to 8mm

Cat.	Qty 1+	Qty 4+	Qty 10+
HP-0744	$7.45	$6.50	$5.75
HP-0745	$7.95	$6.95	$6.25
HP-0746	$8.95	$7.95	$6.95
HP-0747	$9.45	$8.50	$7.50
HP-0748	$9.95	$8.75	$7.75

Production Accessories

CABLE CLIPS / CLAMPS

Adhesive Cable / Bundle Mounts

These have an adhesive base 25 x 18mm and cable tie that clips into the base to retain individual cables, or bundles of wiring.
- The maximum cable bundle diameter accommodated is 17mm.
- The base also has a 3mm hole for a screw mount if required.

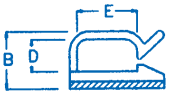
Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
10	HP-1190	$6.95	$6.25	$5.50

Adhesive Cable Clips

The easy way to secure cables to walls, cabinets etc. Simply peel off adhesive cover and slip cable in.

- Please note all sizes are in mm.
- Nylon

Cat.	A	B	C	D	E
HP-0782	11.7	5.9	15.9	2.5	5.2
HP-0784	13.4	8.2	16.0	4.7	8.0
HP-0786	19.0	11.9	19.0	7.9	11.8



Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
25	HP-0782	$9.50	$8.50	$7.50
25	HP-0784	$10.50	$9.25	$8.25
25	HP-0786	$11.50	$10.35	$8.95

Cable Clips

These clips are made using a high-density polyethylene plastic material and galvanised high carbon steel nails. Available in packets of 25 and are priced up to 50% less than others.
- 4 sizes available

3 X 5MM

Accepts cables up to 3mm high by 5mm wide. Suits the following: WB-1706/WB-1708 speaker cable & 6 core flat telephone cable.

Pack	Cat	Qty 1+	Qty 4+	Qty 10+
25	HP-0680	$2.45	$2.15	$1.95

5 X 8MM EXPANDABLE

Suits round cables with 5 x 8mm diameter - including 4 core alarm cable, 75Ω thin coax and 50Ω thin coax.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
25	HP-0682	$2.75	$2.45	$2.15

5 X 7MM

Accepts cable up to 5mm high by 7mm wide. Suits the following: WB-1706/WB-1708 speaker cable & 6 core flat telephone cable

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
25	HP-0692	$2.95	$2.60	$2.30

7 - 10MM EXPANDABLE

Suitable for round cable 7-10mm diameter - including 6 core alarm cable, air spaced coax and Belden coax.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
25	HP-0694	$3.45	$3.05	$2.75

'P' Type Cable Clamps

- Nylon

Size	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
For 5mm cable	6	HP-0752	$1.95	$1.75	$1.55
For 7mm cable	6	HP-0754	$2.45	$2.15	$1.95
For 10mm cable	6	HP-0756	$2.95	$2.60	$2.30

DO A FRIEND A FAVOUR

If you have a technical friend or someone who may be just interested in some of the products we stock, simply mail or email his or her address to:

Catalogue Department
Jaycar Electronics: PO Box 7172
Silverwater, NSW 1811 or email
to catalogue@jaycar.com

PCB STANDOFFS

Adhesive PCB Standoffs

The self adhesive base sticks directly to the chassis.
- Requires 4mm PCB hole.
- Adhesive pads 18mm square.
- Two heights available.
- Nylon

Height	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6.35mm	25	HP-0760	$11.95	$10.70	$9.50
12.7mm	25	HP-0762	$13.95	$12.35	$10.95

Screw Mount PCB Supports

These supports have a 2.5mm hole for securing to chassis with a screw, use 3 x 10mm or a self tapper.
- Two heights available.
- Requires 4mm PCB hole.
- Nylon

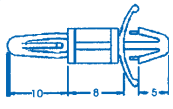
Height	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
10mm	25	HP-0764	$7.95	$6.95	$6.25
20mm	25	HP-0766	$9.95	$8.75	$7.75

Flush Mount PCB Supports

These are virtually flush mount on the underside of the chassis.
- PCB hole 4mm.
- Chassis hole 5.5mm
- Chassis thickness 0.8-1.2mm.
- Two heights available.
- Nylon

Height	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6.35mm	25	HP-0774	$6.95	$6.25	$5.50
10mm	25	HP-0776	$7.50	$6.75	$5.95

Screwless PCB Standoff



- Nylon

Saves using nuts, bolts and spacers. Size 8mm. Requires 3mm hole each end.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-0770	$2.50	$2.21	$1.95

Metal Right Angle PCB Standoffs

Threaded M3 standoffs, right angle.

Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
8	HP-0872	$4.95	$4.45	$3.90

SPACERS

Untapped Nylon PCB Spacers

Superb range of spacers. Fixing is by size 6 or 8 self tapping screws. The hex centre section can be gripped to prevent rotation while fixing.
- OD 8.2mm.

Length	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6mm	5	HP-0980	$2.75	$2.45	$2.15
12mm	5	HP-0982	$2.75	$2.45	$2.15
19mm	4	HP-0984	$2.75	$2.45	$2.15
25mm	4	HP-0986	$2.95	$2.60	$2.30
32mm	4	HP-0988	$3.50	$3.15	$2.75
38mm	4	HP-0990	$3.95	$3.45	$3.15

Untapped Nylon Spacers

- Untapped
- ID 4.1mm. OD 6.4mm.

Length	Diameter	Pack	Cat	Qty 1+	Qty 4+	Qty 10+
6mm	6mm	25	HP-0930	$6.95	$6.25	$5.50
10mm	6mm	25	HP-0934	$7.95	$6.95	$6.25

SPACERS (CONTINUED)

3mm Tapped Nylon Spacers

These spacers are tapped all the way through for a 3mm screw.
- OD 6mm.

Length	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6.3mm	25	HP-0920	$8.95	$7.95	$6.95
9mm	25	HP-0922	$9.45	$8.50	$7.50
12mm	25	HP-0924	$9.95	$8.75	$7.75
15mm	25	HP-0926	$11.95	$10.70	$9.50

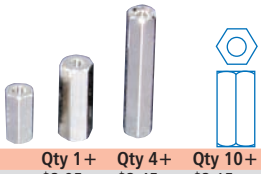
Untapped Metal Spacers

- Nickel plated steel
- Untapped.
- ID: 3.4mm OD 4.7mm.

Length	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
6mm	8	HP-0860	$3.65	$3.15	$2.90
9mm	8	HP-0862	$3.95	$3.45	$3.15
12mm	6	HP-0864	$4.65	$4.15	$3.60
25mm	4	HP-0866	$4.95	$4.45	$3.90

3mm Tapped Metal Spacers

- Nickel plated
- 3mm standard metric thread

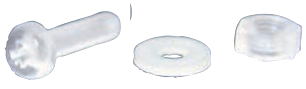


Length	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
10mm	8	HP-0900	$3.95	$3.45	$3.15
15mm	8	HP-0904	$4.95	$4.45	$3.90
25mm	8	HP-0907	$5.95	$5.25	$4.75

FASTENERS & SCREWS

Metric Nylon Fasteners

- Precision moulded from white nylon.
- Fully insulated
- Suitable for high temperature work
- Corrosion free and won't shake loose.
- Ideal for transistor and heatsink use • Supplied in polybag • Round heads



M3 NYLON SCREWS, NUTS & WASHERS

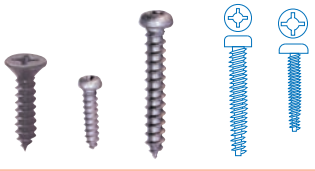
Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M3 x 12mm	Screws, Phillips Drive Head	10	HP-0140	$2.95	$2.60	$2.30
M3 x 25mm	Screws, Phillips Drive Head	10	HP-0142	$3.50	$3.15	$2.75
M3 Nuts	Hex	10	HP-0146	$3.00	$2.60	$2.30
M3 Nuts	Hex with Washer	25	HP-0150	$6.50	$5.75	$4.95
M3 Washer	Flat	10	HP-0148	$2.50	$2.21	$1.95

M4 NYLON SCREWS, NUTS & WASHERS

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M4 x 10mm	Screw, Phillips Drive Head	25	HP-0160	$7.50	$6.75	$5.95
M4 x 16mm	Screw, Phillips Drive Head	25	HP-0162	$8.50	$7.50	$6.75
M4 Nuts	Hex	25	HP-0168	$7.00	$6.25	$5.50
M4 Washers	Flat 10mmOD, 4.2mmID	25	HP-0166	$5.00	$4.45	$3.95

Woodscrews

- Ideal for mounting speakers
- Black finish
- No.6 size suitable for tweeters, midrange and crossovers.
- No.10 size suitable for Woofers
- Phillips Head



Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
No.6 x 15mm	Round Head (Tweeters)	20	HP-0620	$4.95	$4.45	$3.90
No.6 x 15mm	Countersunk	20	HP-0626	$4.95	$4.45	$3.90
No.8 x 25mm	Countersunk	20	HP-0625	$5.95	$5.25	$4.75
No.10 x 30mm	Round Head (Woofers)	20	HP-0624	$5.95	$5.25	$4.75
No.10 x 30mm	Countersunk	20	HP-0628	$5.95	$5.25	$4.75

Self-Tapping Screws

- Nickel plated Steel

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
No.4 x 6mm	Phillips Head	25	HP-0550	$3.00	$2.60	$2.30
No.4 x 9mm	Phillips Head	25	HP-0565	$3.00	$2.60	$2.30
No.4 x 12mm	Phillips Head	25	HP-0554	$3.50	$3.15	$2.75
No.8 x 12mm	Phillips Head	25	HP-0558	$4.00	$3.60	$3.15

Metric Metal Thread Fasteners

- Nickel or Cadmium Plated and passivated screws
- Supplied in polybag

M2 SCREWS

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M2 x 8mm	Screw Cheesehead	4	HP-0390	$1.50	$1.35	$1.20

M3 EQUIPMENT SCREWS

*Black japanned screws used holding top/side panels on VCR, DVD, Amplifiers, etc.

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M3 x 5mm	Screw, Phillips, Black	25	HP-0440	$2.30	$2.03	$1.80

M3 SCREWS, NUTS & WASHERS

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M3 x 6mm	Screw, Pozi Drive Head	25	HP-0400	$2.50	$2.21	$1.95
M3 x 10mm	Screw, Pozi Drive Head	25	HP-0403	$3.00	$2.60	$2.30
M3 x 15mm	Screw, Pozi Drive Head	25	HP-0406	$3.50	$3.15	$2.75
M3 x 20mm	Screw, Pozi Drive Head	25	HP-0410	$3.50	$3.15	$2.75
M3 x 25mm	Screw, Pozi Drive Head	25	HP-0414	$3.50	$3.15	$2.75
M3 x 32mm	Screw, Pozi Drive Head	25	HP-0418	$4.00	$3.60	$3.15
M3 Nuts	Hex	25	HP-0425	$2.95	$2.60	$2.30
M3 Washers	Flat	25	HP-0430	$3.00	$2.60	$2.30
M3 Washers	Shakeproof	25	HP-0433	$3.50	$3.15	$2.75
M3 Washers	Spring	25	HP-0436	$3.00	$2.60	$2.30

M4 SCREWS, NUTS & WASHERS

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M4 x 10mm	Screw, Pozi Drive Head	25	HP-0450	$3.50	$3.15	$2.75
M4 x 15mm	Screw, Pozi Drive Head	25	HP-0453	$4.50	$3.95	$3.60
M4 Nuts	Hex	25	HP-0462	$3.50	$3.15	$2.75
M4 Washers	Flat	25	HP-0465	$3.50	$3.15	$2.75
M4 Washers	Shakeproof	25	HP-0468	$4.00	$3.60	$3.15

M6 Rack Screws, Nuts & Washers

Suitable for mounting rack style enclosures into rack units

Size	Type	Pack	Cat.	Qty 1+	Qty 4+	Qty 10+
M6 x 16mm	Screw, Pozi Drive, Black	12	HP-0300	$4.95	$4.45	$3.90
M6 Nuts	Captive Nuts	12	HP-0310	$7.95	$6.95	$6.25
M6 Washer	Flat Washer	12	HP-0322	$3.50	$3.15	$2.75

NUTS & SPRINGS

Potentiometer Nuts

Packet of 12 potentiometer nuts and washers.

Size	Thread	Cat.	Qty 1+	Qty 10+	Qty 50+
24mm	3/8" 32THD	RP-3500	$2.85	$2.53	$2.23
16mm	Metric	RP-7500	$2.85	$2.53	$2.23

200 Piece Spring Assortment

This set contains approximately 200 springs, with 20 different types, compression and tension. They range from 10mm long to 70mm long.

- Sizes for all are given on the lid
- Supplied in a plastic storage case

Cat.	Qty 1+	Qty 4+	Qty 10+
HP-0638	$19.95	$17.70	$15.70

Thread Repair Kits (small Metric) M3, M4, M5 and M6

These products enable you to drill out a stripped or otherwise damaged thread in a blind hole. You can then insert a replacement thread with the coiled thread inserts and regain full function of the threaded hole, often giving a much stronger thread than the original one. This also works when a damaged stud or screw shaft has been removed. The basic thread repair kit includes: drill bit, thread tap, insertion tool, tag punch and 10 inserts of the nominated thread size.

NEW 2013

Four versions available:
HP-1600 Thread repair kit for M3 threads
HP-1602 Thread repair kit for M4 threads
HP-1604 Thread repair kit for M5 threads
HP-1606 Thread repair kit for M6 threads

Type	Cat.	Qty 1+	Qty 3+	Qty 6+
M3	HP-1600	$24.95	$22.35	$19.70
M4	HP-1602	$24.95	$22.35	$19.70
M5	HP-1604	$24.95	$22.35	$19.70
M6	HP-1606	$24.95	$22.35	$19.70

Component Storage

STORAGE CASES

Ideal for carrying small components and is an indispensable addition to any tool kit. See through plastic construction enables the contents to be easily identified and the 2 snap action latches secure the lid and keep everything in its rightful place.

6 Compartment Mini Storage Case

2 of the compartments have guides to enable them to be divided in half and 2 dividers are included.

- Compartments: 27(W) x 77(L) x 23(D) mm
- Overall size: 125(W) x 85(L) x 27(D)mm.

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6308	$2.75	$2.45	$2.15

18 Compartment Storage Box

This storage box consists of three rows with removable dividers so you can configure it for longer parts.

- Compartment size: 37(L) x 37(W) x 30(D)mm
- Dimensions: 230(L) x 115(W) x 35(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6306	$4.45	$3.95	$3.45

18 Compartment Storage Case

The basic box has 6 compartments measuring 43(W) x 37(D) x 167(L)mm.
These can be divided into 2, 3 or 4 sub-compartments using the dividers provided.

- Overall size: 274(W) x 40(D) x 175(L)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6312	$7.95	$6.95	$6.25

28 Compartment Storage Case

Can be configured to have anything from 4 big compartments measuring 350(W) x 52(L) x 45(D) mm to 28 compartments measuring 48(W) x 52(L) x 45(D) mm, or anything in between using the dividers provided.

- Overall size: 357(W) x 48(H) x 220(D)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6313	$11.95	$10.70	$9.50

Industrial Storage Cases

Built for the rough and tumble of the building site, factory or workshop. Made from sturdy ABS with solid clasps and removable compartment trays so you can take parts with you to the job. Two sizes available:

15 COMPARTMENT STORAGE

12 compartments: 55(L) x 40(W) x 50(D)mm
3 compartments: 80(L) x 50(W) x 50(D)mm
Case size: 335(L) x 205(W) x 60(D)mm

19 COMPARTMENT STORAGE

4 compartments: 55(L) x 40(W) x 50(D)mm
8 compartments: 80(L) x 50(W) x 50(D)mm
7 compartments: 110(L) x 80(W) x 50(D)mm
Case size: 335(L) x 420(W) x 60(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
15 Compartment	HB-6304	$8.95	$7.95	$6.95
19 Compartment	HB-6305	$14.95	$13.35	$11.70

30 Drawer Parts Cabinet

6 rows of 5 drawers, measuring 50(W) x 115(D) x 30(H)mm. Ideal for workshop use & can be wall mounted.

- Stack multiple units together for larger storage.
- Overall size 280(W) x 130(D) x 210(H) mm.

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6323	$22.95	$20.35	$18.35

33 Drawer Parts Cabinet

This is a good sized unit. It has eight rows of four drawers 50(W) x 108(D) x 32(H) mm plus one full width drawer.

- Large size
- Overall size: 260(W) x 120(D) x 345(H) mm.

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6328	$23.95	$21.35	$18.95

6 Bin Parts Rack Cabinets

SMALL - Similar to our large parts rack, this unit is designed to house smaller items such as ICs, nuts, screws etc.

- Trays measure 60(W) x 65(H) x 45(D)mm each and also tilt down to 45 degrees.
- The rack can be wall mounted & multiple units can be used for larger storage requirements.
- Overall size: 400(W) x 75(H) x 60(D)mm

LARGE - This handy parts rack holds a variety of components in neat, see through trays that tilt down to an angle of 45 degrees for easy access.

- Each has an integral label holder and measures 85(W) x 95(H) x 65(D)mm.
- The rack can be wall mounted and multiple units can be nested together for larger storage requirements.
- Dimensions are 600(W) x 110(H) x 90(D)mm

Three units stacked

	Cat.	Qty 1+	Qty 4+	Qty 10+
Small Rack Cabinets	HB-6317	$8.95	$7.95	$6.95
Large Rack Cabinets	HB-6318	$19.95	$17.70	$15.70

Conductive Foam

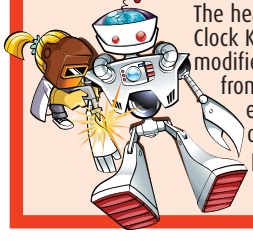
Non-static reusable sheeting for storing CMOS, IC's, LSI's, etc.

- Will store up to 150 ICs on one sheet
- Size 225 x 150mm.
- Ideal for lining storage trays to provide antistatic protection

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ZV-9998	$9.95	$8.75	$6.75

Dräger-Punk Sorba-Clock

Makers Name: John Loadsman **Location: New South Wales**



The heart of the creation is the Akafugu IV-17 Modular Clock Kit with four letter word Eeprom added and with modified firmware and installed in a case made made from an old Drager anaesthetic machine soda-lime canister (that was for absorbing the expired carbon dioxide), capped with a glass lid from a large lab beaker, and mounted on a base made from a cigar box. I used lots of components and electromech parts...read about it online...

For more details scan the QR code or go to www.jaycar.com.au/makers

Our 2013 range of connectors has been augmented with further expansion of popular 110 Keystone types, Multipole 3.5mm Plugs & Sockets and a new range of 'D' Type Connectors with push-in Connection Terminals (page 145).

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RCA PLUGS

PLUGS - PLASTIC

Economy style.

Colour	Cat	Qty 1+	Qty 10+	Qty 50+
Blue	PP-0238	$0.68	$0.60	$0.52
Green	PP-0239	$0.68	$0.60	$0.52
Red	PP-0240	$0.68	$0.60	$0.52
Black	PP-0242	$0.68	$0.60	$0.52
Yellow	PP-0243	$0.68	$0.60	$0.52
White	PP-0244	$0.68	$0.60	$0.52

METAL BODY RCA PLUGS WITH CABLE PROTECTION SPRING

NICKEL		Qty 1+	Qty 10+	Qty 50+
	PP-0245	$1.95	$1.75	$1.55
GOLD PLATED 7mm Cable				
Red	PP-0236	$3.25	$2.90	$2.60
Black	PP-0237	$3.25	$2.90	$2.60

PREMIUM GOLD PLATED METAL BODY RCA PLUGS

Colour	Cat	Qty 1+	Qty 10+	Qty 50+
Red	PP-0230	$3.95	$3.45	$3.15
Black	PP-0232	$3.95	$3.45	$3.15
Yellow	PP-0231	$3.95	$3.45	$3.15
White	PP-0233	$3.95	$3.45	$3.15
Blue	PP-0234	$3.95	$3.45	$3.15
Green	PP-0235	$3.95	$3.45	$3.15

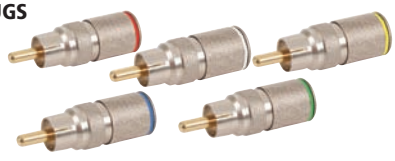
COMPRESSION CRIMP RCA

For high end audio and video. Recommended for Pay TV, HDTV, Component and RGB.

COMPRESSION CRIMP		Qty 1+	Qty 10+	Qty 50+
Red	PP-0200	$4.50	$3.95	$3.60
Yellow	PP-0204	$4.50	$3.95	$3.60
White	PP-0203	$4.50	$3.95	$3.60
Blue	PP-0201	$4.50	$3.95	$3.60
Green	PP-0202	$4.50	$3.95	$3.60

CRIMPLESS RG6 PLUGS

Crimpless and solderless. All metal construction, requiring no tools to fit.



Colour	Cat	Qty 1+	Qty 10+	Qty 50+
Red	PP-0205	$3.50	$3.15	$2.75
Yellow	PP-0206	$3.50	$3.15	$2.75
White	PP-0207	$3.50	$3.15	$2.75
Blue	PP-0208	$3.50	$3.15	$2.75
Green	PP-0209	$3.50	$3.15	$2.75

PROFESSIONAL EARTH FIRST RCA PLUGS

These use a retractable earth sleeve which ensures the earth path is connected before the signal. Very important when working with powered equipment.

- Pro quality with gold plating.

NEW LOWER PRICE

Colour	Cat	Qty 1+	Qty 10+	Qty 50+
Red	PP-0222	$4.95	$4.45	$3.90
Black	PP-0224	$4.95	$4.45	$3.90

KEYSTONE INSERTS

Inserts for Keystone Wallplates

A range of inserts to cater for computer and Audio video applications. They fit standard 110 keystone wallplates and allow you to configure your installation any way you like.

Toslink - Toslink	Cat PS-0749
USB - USB Female	Cat PS-0753
USB - USB - Right Angle NEW 2013	Cat PS-0795
F81 - F81 - White	Cat PS-0761
BNC - BNC - White	Cat PS-0763
RCA - RCA Socket - White	Cat PS-0764
RCA - RCA - Red	Cat PS-0765
RCA - RCA - Yellow	Cat PS-0767
RCA - RCA - Blue	Cat PS-0794
RCA - RCA - Green	Cat PS-0798
S-Video - S-Video	Cat PS-0769
HDMI - HDMI - White	Cat PS-0771
HDMI - HDMI Right Angle NEW 2013	Cat PS-0796
HDMI - HDMI with Flylead	Cat PS-0797
USB - USB - White	Cat PS-0773
4mm Banana - Red	Cat PS-0774
4mm Banana - Black	Cat PS-0775
3.5mm Stereo Socket	Cat PS-0777
Blank	Cat PS-0779
USB 3.0 - USB 3.0 - White	Cat PS-0799

Cat.	Qty 1+	Qty 5+	Qty 10+
PS-0749	$3.95	$3.45	$3.15
PS-0753	$4.95	$4.45	$3.90
PS-0795 NEW	$4.95	$4.45	$3.90
PS-0761	$2.95	$2.60	$2.30
PS-0763	$2.95	$2.60	$2.30
PS-0764	$2.95	$2.60	$2.30
PS-0765	$2.95	$2.60	$2.30
PS-0767	$2.95	$2.60	$2.30
PS-0794	$2.95	$2.60	$2.30
PS-0798	$2.95	$2.60	$2.30
PS-0769	$3.95	$3.45	$3.15
PS-0774	$2.95	$2.60	$2.30
PS-0775	$2.95	$2.60	$2.30
PS-0777	$2.95	$2.60	$2.30
PS-0779	$0.30	$0.25	$0.24
PS-0771	$9.95	$8.75	$7.75
PS-0796 NEW	$9.95	$8.75	$7.75
PS-0797 NEW	$12.95	$11.35	$10.35
PS-0773	$4.95	$4.45	$3.90
PS-0799	$12.95	$11.35	$10.35

RCA LINE SOCKETS

RCA (PHONO) LINE SOCKETS

Plastic Economy style.

	Cat.	Qty 1+	Qty 10+	Qty 50+
Red	PS-0250	$0.60	$0.52	$0.47
Black	PS-0252	$0.60	$0.52	$0.47

METAL BODY RCA SOCKETS WITH CABLE PROTECTION SPRING

PS-0254

PS-0274

NICKEL PLATED		Qty 1+	Qty 10+	Qty 50+
	PS-0254	$1.95	$1.75	$1.55
GOLD PLATED				
Red	PS-0272	$2.45	$2.15	$1.95
Black	PS-0274	$2.45	$2.15	$1.95

RCA Chassis Sockets

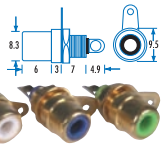
NICKEL PLATED

NON INSULATED

NICKEL PLATED		Qty 1+	Qty 10+	Qty 50+
Black	PS-0256	$0.95	$0.85	$0.75
Red	PS-0257	$0.95	$0.85	$0.75
Yellow	PS-0255	$0.95	$0.85	$0.75

RCA CHASSIS SOCKETS - GOLD

NON INSULATED
Various colured inserts



GOLD PLATED		Qty 1+	Qty 10+	Qty 50+
Black	PS-0258	$1.95	$1.75	$1.55
Red	PS-0259	$1.95	$1.75	$1.55
Yellow	PS-0260	$1.95	$1.75	$1.55
White	PS-0261	$1.95	$1.75	$1.55
GOLD PLATED				
Blue	PS-0270	$1.95	$1.75	$1.55
Green	PS-0271	$1.95	$1.75	$1.55

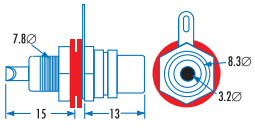
RCA SOCKET MOUNTING KIT
This kit allows you to mount and insulate RCA sockets in a metal panel. The RCA sockets suited are single hole types PS-0256/7 and PS-0258 gold.

- Pkt 10 plastic grommets and fibre washers
- Essential where earth loop hum is a problem

MOUNTING KIT		Qty 1+	Qty 10+	Qty 50+
Pkt 10	HP-1180	$4.95	$4.45	$3.90

RCA CHASSIS SOCKETS - GOLD

HIGH QUALITY - GOLD PLATED INSULATED
Requires 9.5mm dia panel hole

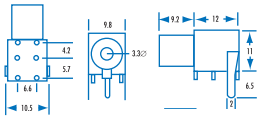


GOLD PLATED INS.		Qty 1+	Qty 10+	Qty 50+
Red	PS-0276	$3.95	$3.45	$3.15
Black	PS-0277	$3.95	$3.45	$3.15
Yellow	PS-0275	$3.95	$3.45	$3.15
White	PS-0278	$3.95	$3.45	$3.15

RCA PCB Sockets

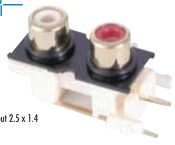
RCA RIGHT ANGLE SOCKET.

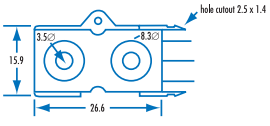
- Black insert only
- Nickel plated

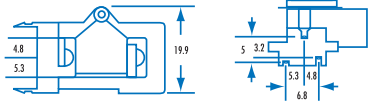


DOUBLE SOCKET – GOLD

- White & red coloured inserts







RIGHT ANGLE	Qty 1+	Qty 10+	Qty 50+
PS-0279	$1.45	$1.30	$1.15
DOUBLE SOCKET – VERTCIAL			
PS-0280	$1.95	$1.75	$1.55

RCA Plug to Adaptors

RCA PLUG TO 3.5MM MONO SKT

PA-3508

RCA PLUG TO 6.5MM MONO SKT

PA-3510

RCA PLUG TO PAL TV SOCKET

PA-3676

RCA MALE TO F-81 SOCKET

PA-3677

RCA PLUG TO BNC FEMALE

PA-3655

RCA MALE TO RCA MALE

PA-3597

RCA ADAPTOR

Allows a RCA lead to enter an amplifier from the side and the leads plug in neatly. Short compact body.

PA-3566

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3508	$1.95	$1.75	$1.55
PA-3597	$2.95	$2.60	$2.30
PA-3510	$1.95	$1.75	$1.55
PA-3676	$3.95	$3.45	$3.15
PA-3677	$3.45	$3.05	$2.75
PA-3655	$3.95	$3.45	$3.15
PA-3566	$4.95	$4.45	$3.90

RCA ADAPTORS SOCKETS

RCA FEMALE TO RCA FEMALE PA-3598

RCA PLUG TO 2 X RCA SOCKET PA-3560

1 X RCA SOCKET TO 2 X RCA SOCKET PA-3562

RCA SOCKET TO RCA SOCKET PA-3599
Pkt 2
- Gold plated

3 X RCA SOCKET TO 3 X RCA SOCKET PA-3564
- Red, white & yellow
- Gold plated

RCA SOCKET TO BNC SOCKET PA-3678

DOUBLE ADAPTOR PA-3570
RCA plug to socket, with a second socket at right angles. Ideal for car stereo applications.
- Gold plated

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3598	$2.95	$2.60	$2.30
PA-3560	$3.95	$3.45	$3.15
PA-3562	$3.95	$3.45	$3.15
PA-3599	$5.95	$5.25	$4.75
PA-3564	$7.95	$6.95	$6.25
PA-3678	$3.95	$3.45	$3.15
PA-3570	$5.95	$5.25	$4.75

PANEL MOUNT - RCA SOCKET TO SOCKET
Gold plated, panel mounted RCA socket to RCA socket adaptors.

Yellow	Cat. PS-0441	Green	Cat. PS-0444
Red	Cat. PS-0442	Blue	Cat. PS-0445
Black	Cat. PS-0443	White	Cat. PS-0446

- Insulated

Allows you to plug straight into the back of the socket

PANEL MOUNT		Qty 1+	Qty 10+	Qty 50+
Yellow	PS-0441	$3.50	$3.15	$2.75
Red	PS-0442	$3.50	$3.15	$2.75
Black	PS-0443	$3.50	$3.15	$2.75
Green	PS-0444	$3.50	$3.15	$2.75
Blue	PS-0445	$3.50	$3.15	$2.75
White	PS-0446	$3.50	$3.15	$2.75

TECH TIP!

RCA STYLE ADAPTOR LEADS

In addition to the products above, we also have a large range of interconnection leads with RCA plugs or sockets on one end and RCAs - or many other types on the other.

WALLPLATES

Wallplate Inserts For AV Outlets

This series of blank wallplate inserts and AV connectors are designed to provide custom audio/video outlets. Provide stereo line level audio to a house or office, for example, or install cable TV outlets throughout the house. All fit standard household power point bases and brackets. The AV connectors fit only one way in the plates, so you have a front and rear connection.

BLANK WALLPLATE WITH CUTOUT
- Designed for Aust/NZ standard GPO mounting pitch

1 WAY WALLPLATE INSERT

2 WAY WALLPLATE INSERT

RCA (Phono) Wallplates

2 WAY (STEREO)
Standard power point size.
- White & red inserts

3 WAY (AV)
Standard power point size.
- White, red and yellow coloured inserts

GOLD PLATED CONNECTORS

For use with Wallplates

SPEAKER WIRE BINDING POST
- Will also accept a banana plug

PS-0490/91

BANANA SOCKET / BINDING POST
- Banana socket front, binding post input rear for speaker cable

PS-0492/93

RCA SOCKET / F-61 SOCKET
- RCA socket on front and F-61 socket on back for easy termination of coax cables

PS-0494

4 WAY (2 X STEREO)
Standard power point size.
- White & red coloured inserts

3 WAY WALLPLATE INSERT

4 WAY WALLPLATE INSERT

6 WAY WALLPLATE INSERT

8 WAY WALLPLATE INSERT

2 WAY		Qty 1+	Qty 2+	Qty 5+
	PS-0292	$7.95	$6.95	$6.25
3 WAY				
	PS-0293	$8.95	$7.95	$6.95
4 WAY				
	PS-0294	$9.95	$8.75	$7.75
BLANK PLATE		Qty 1+	Qty 2+	Qty 5+
	PS-0480	$2.50	$2.21	$1.95
1 WAY PLATE				
	PS-0481	$2.95	$2.60	$2.30
2 WAY PLATE				
	PS-0482	$2.95	$2.60	$2.30
3 WAY PLATE				
	PS-0483	$2.95	$2.60	$2.30
4 WAY PLATE				
	PS-0484	$2.95	$2.60	$2.30
6 WAY PLATE				
	PS-0485	$2.95	$2.60	$2.30
8 WAY PLATE				
	PS-0486	$2.95	$2.60	$2.30

RCA SOCKET PS-0495/96
- RCA socket front, solder connection rear

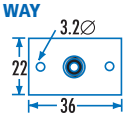
F-61 SOCKET / F-61SOCKET
- F-61 socket both front and back.
- Ideal for cable TV

PS-0498

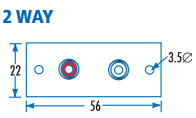
BINDING POST		Qty 1+	Qty 2+	Qty 5+
Red	PS-0490	$3.95	$3.45	$3.15
Black	PS-0491	$3.95	$3.45	$3.15
BANANA				
Red	PS-0492	$2.95	$2.60	$2.30
Black	PS-0493	$2.95	$2.60	$2.30
RCA / F-61				
	PS-0494	$2.45	$2.15	$1.95
RCA / SOLDER				
Blue	PS-0489	$2.45	$2.15	$1.95
Red	PS-0495	$2.45	$2.15	$1.95
Black	PS-0496	$2.45	$2.15	$1.95
Yellow	PS-0497	$2.45	$2.15	$1.95
Green	PS-0499	$2.45	$2.15	$1.95
F-61 / F-61				
	PS-0498	$2.45	$2.15	$1.95

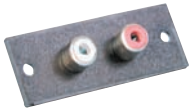
RCA PHENOLIC SOCKETS

1 WAY



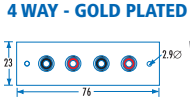
2 WAY



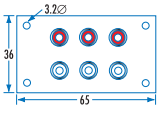


4 WAY

4 WAY - GOLD PLATED



6 WAY



1 WAY	Qty 1+	Qty 10+	Qty 50+
PS-0262	$0.95	$0.85	$0.75
2 WAY			
PS-0263	$1.25	$1.10	$0.97
4 WAY			
PA-0265	$1.75	$1.55	$1.40
4 WAY GOLD PLATED			
PA-0266	$3.45	$3.05	$2.75
6 WAY			
PS-0268	$3.95	$3.45	$3.15

VGA WALLPLATES & SOCKETS

VGA Plug to Socket - 90°

VGA plug to socket right angle adaptor.

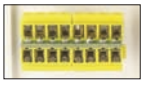
- Available with the socket angles up or down

Socket Angled Up PA-0898
Socket Angled Down PA-0899

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-0898	$8.95	$7.95	$6.95
PA-0899	$8.95	$7.95	$6.95

15 Pin VGA Socket Wallplate

A wallplate that can be used on projectors, monitors and high end TVs. Comes with mounting hardware, screws and screw mounting centres for easy flush mount installation. Installation is made easy via the screw terminal on the rear mounted PCB.



Rear connections

Cat.	Qty 1+	Qty 2+	Qty 5+
PT-0476	$19.95	$17.70	$15.70

VGA Wallplate with 3.5mm Audio Socket

Standard wallplate with VGA and 3.5mm audio socket.

NEW LOWER PRICE

Cat.	Qty 1+	Qty 5+	Qty 10+
PT-0477	$19.95	$17.70	$15.70

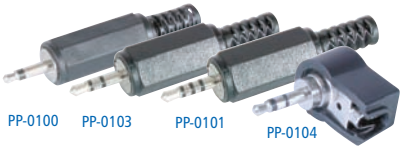
TECH TIP!

Jack Plug - also known as a phone plug (US) or TRS (tip, ring, sleeve).
Available as mono or stereo versions in several common diameters:

- **2.5mm - the smallest size used where space is a premium. Was once used as a mono earphone plug but now has multichannel functions.**
- **3.5mm - the mini plug, which in the stereo version is widely found on headphones used with portable audio such as MP3 players etc. It is also a standard connector used on PC sound cards. The mono version is occasionally used as a DC power connector.**
- **6.5mm - the largest size; the mono version is used on guitar & microphone leads, while the stereo version is often used on Hi-Fi headphones. The 6.5mm (or 1/4" phone plug) was originally used for manual telephone switchboards particularly the 'Sylvester' type**

2.5MM

2.5mm Subminiature Plugs



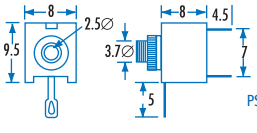
PP-0100 PP-0103 PP-0101 PP-0104

MONO	Qty 1+	Qty 10+	Qty 50+
PP-0100	$0.75	$0.65	$0.60
STEREO			
PP-0103	$1.25	$1.10	$0.97
STEREO R/A			
PP-0104	$3.95	$3.45	$3.15
4 CONTACT			
PP-0101	$2.95	$2.60	$2.30

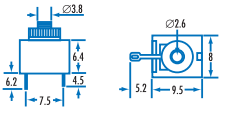
2.5mm Line Socket

STEREO	Qty 1+	Qty 10+	Qty 50+
PS-0109	$1.95	$1.75	$1.55

2.5mm Chassis Sockets



PS-0105



PS-0107

MONO	Qty 1+	Qty 10+	Qty 50+
PS-0105	$0.95	$0.85	$0.75
STEREO			
PS-0107	$1.95	$1.75	$1.55

2.5mm Surface Mount Sockets

SMD

Packet of 10

SMD STEREO SWITCHED	Qty 1+	Qty 10+	Qty 25+
PKT 10 PS-0110	$19.95	$17.70	$15.70

2.5mm Adaptors

2.5MM STEREO PLUG TO 3.5MM STEREO RIGHT ANGLE SOCKET PA-3502

2.5MM MONO PLUG TO 6.5MM MONO SOCKET PA-3504

2.5MM STEREO PLUG TO 3.5MM STEREO SOCKET PA-3532

	Qty 1+	Qty 10+	Qty 50+
PA-3502	$3.95	$3.45	$3.15
PA-3504	$1.95	$1.75	$1.55
PA-3532	$3.95	$3.45	$3.15

3.5MM

3.5mm Miniature Plugs

PP-0114 PP-0130 PP-0138 PP-0136

MONO	Qty 1+	Qty 10+	Qty 50+
PP-0114	$0.85	$0.75	$0.65
STEREO			
PP-0130	$1.25	$1.10	$0.97
4 CONTACT			
PP-0138	$4.95	$4.45	$3.90
STEREO RIGHT ANGLE			
PP-0136	$1.85	$1.65	$1.45

METAL PLUGS WITH CABLE PROTECTION SPRING

PP-0116 PP-0135 PP-0131

MONO	Qty 1+	Qty 10+	Qty 50+
PP-0116	$1.45	$1.30	$1.15
STEREO			
PP-0135	$1.85	$1.65	$1.45
STEREO GOLD PLATED			
PP-0131	$2.45	$2.15	$1.95

LINE SOCKETS

PS-0126 PS-0134 PS-0139

NEW 2013

MONO	Qty 1+	Qty 10+	Qty 50+
PS-0126	$1.45	$1.30	$1.15
STEREO			
PS-0134	$1.95	$1.75	$1.55
4 CONTACT	Qty 1+	Qty 10+	Qty 50+
PS-0139 NEW	$4.95	$4.45	$3.90

SLIMLINE - GOLD PLUGS

NEW 2013

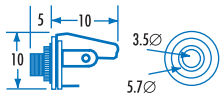
PP-0132 PP-0134

STEREO	Qty 1+	Qty 10+	Qty 50+
PP-0132	$2.95	$2.60	$2.30
4 POLE	Qty 1+	Qty 10+	Qty 50+
PP-0134	$4.95	$4.45	$3.90

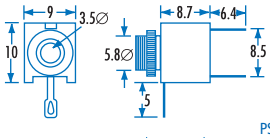
3.5MM (CONTINUED)

3.5mm Chassis Sockets

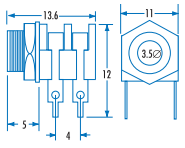
MONO



PS-0120



PS-0122

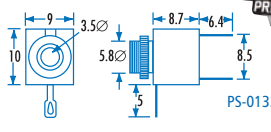


PS-0123

MONO OPEN	Qty 1+	Qty 10+	Qty 50+
PS-0120	$1.45	$1.30	$1.15
MONO ENCLOSED			
PS-0122	$0.95	$0.85	$0.75
MONO INSULATED			
PS-0123	$2.45	$2.15	$1.95

STEREO

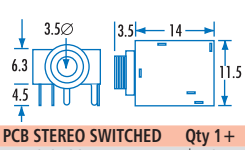
NEW LOWER PRICE



PS-0132

STEREO	Qty 1+	Qty 10+	Qty 50+
PS-0132	$1.35	$1.20	$1.05

3.5mm PCB Socket



PS-0133

PCB STEREO SWITCHED	Qty 1+	Qty 10+	Qty 50+
PS-0133	$1.65	$1.45	$1.30

3.5mm Adaptors - Mono

3.5MM MONO PLUG TO RCA SOCKET PA-3500

3.5MM MONO PLUG TO 6.5MM MONO SOCKET PA-3506

3.5MM MONO PLUG TO 3.5MM STEREO SOCKET PA-3584

3.5MM MONO PLUG TO 6.5MM STEREO SOCKET PA-3594

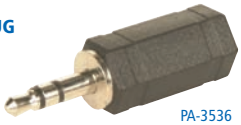
	Qty 1+	Qty 10+	Qty 50+
PA-3500	$1.95	$1.75	$1.55
PA-3506	$1.95	$1.75	$1.55
PA-3584	$1.95	$1.75	$1.55
PA-3594	$1.95	$1.75	$1.55

3.5mm Adaptors - stereo

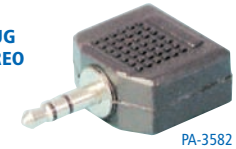
3.5MM STEREO PLUG TO 6.5MM STEREO SOCKET PA-3586

3.5MM STEREO PLUG TO 3.5MM STEREO RIGHT ANGLE SOCKET PA-3503

3.5MM STEREO PLUG TO 2.5MM STEREO SOCKET PA-3536



3.5MM STEREO PLUG TO 2 X 3.5MM STEREO SOCKETS PA-3582



3.5MM STEREO PLUG TO 2 X RCA SOCKETS PA-3580

3.5MM STEREO SOCKET TO 2 X 3.5MM MONO PLUG
Aeroplane adaptor - allows you to use your own headphones in planes fitted with 2 x 3.5mm sockets. PA-3581

3.5MM PLUG TO PAL (75 OHM) SOCKET PA-3657

	Qty 1+	Qty 10+	Qty 50+
PA-3586	$2.95	$2.60	$2.30
PA-3503	$3.95	$3.45	$3.15
PA-3536	$3.95	$3.45	$3.15
PA-3657	$3.95	$3.45	$3.15
PA-3582	$3.95	$3.45	$3.15
PA-3580	$3.95	$3.45	$3.15
PA-3581	$5.95	$5.25	$4.75

3.5MM STEREO SOCKET TO 3.5MM STEREO SOCKET PA-3583

	Qty 1+	Qty 10+	Qty 50+
PA-3583	$1.95	$1.75	$1.55

3.5MM STEREO SOCKET TO 2 X RCA SOCKETS ADAPTOR PA-3585

	Qty 1+	Qty 10+	Qty 50+
PA-3585	$2.55	$2.25	$1.95

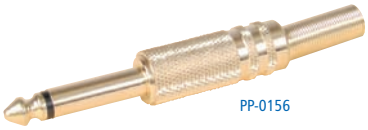
6.5MM 1/4"

6.5mm 1/4" Plugs

PLUGS - LINE

PP-0150

PP-0154


PP-0156

PP-0151

PP-0152

PP-0170

PP-0174

PP-0175

PP-0177

PP-0178

MONO		Qty 1+	Qty 10+	Qty 50+
Plastic	PP-0150	$1.00	$0.90	$0.80
Metal	PP-0154	$1.85	$1.65	$1.45
Gold	PP-0156	$3.65	$3.15	$2.90
Red	PP-0151	$4.95	$4.45	$3.90
Black	PP-0152	$4.95	$4.45	$3.90
STEREO				
Plastic	PP-0170	$1.45	$1.30	$1.15
Metal	PP-0174	$2.45	$2.15	$1.95
Gold	PP-0175	$3.95	$3.45	$3.15
Red	PP-0177	$4.95	$4.45	$3.90
Black	PP-0178	$4.95	$4.45	$3.90

6.5MM 1/4" (CONTINUED)

6.5mm PRO METAL PLUGS

Made especially for the rigours of the road or anywhere where a heavy duty, tough 6.5mm plug is called upon. The mono plugs feature blue identification rings, whereas the stereo plugs have black rings. This is particularly handy if you have a combination of stereo and mono plugs on the one mixing desk or patch bay.

MONO METAL - PRO	Qty 1+	Qty 10+	Qty 50+
PP-0157	$6.95	$6.25	$5.50
STEREO METAL - PRO			
PP-0179	$7.50	$6.75	$5.95

RIGHT ANGLE PLUGS

Super tough all metal construction plug for harsh environments and musos who want the best.

- Use with 6mm O.D. cable
- Strain relief provided.

PRO RIGHT ANGLE	Qty 1+	Qty 10+	Qty 50+
PP-0159	$4.95	$4.45	$3.90
RIGHT ANGLE			
PP-0158	$1.95	$1.75	$1.55
STEREO RIGHT ANGLE			
PP-0176	$2.50	$2.21	$1.95

RELATED PRODUCT...

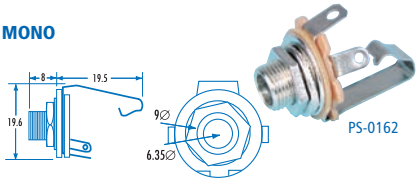
For a great range of screened audio cable to suit these products see page 117.

6.5mm 1/4" Line Sockets

MONO	Qty 1+	Qty 10+	Qty 50+
PS-0166	$1.65	$1.45	$1.30
STEREO			
PS-0194	$1.95	$1.75	$1.55

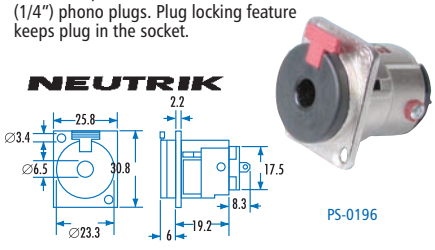
6.5mm 1/4" Chassis Sockets

MONO



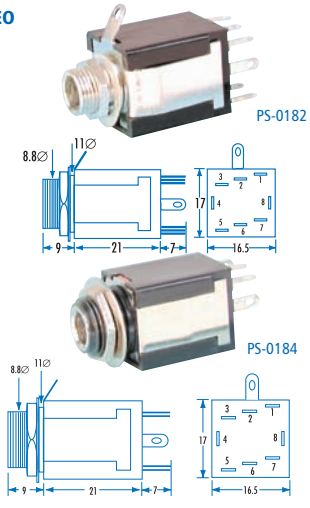
PROFESSIONAL LOCKING CHASSIS JACK

Metal shell, mates with all mono and stereo 6.5mm (1/4") phono plugs. Plug locking feature keeps plug in the socket.



MONO OPEN UNSWITCHED	Qty 1+	Qty 10+	Qty 50+
PS-0162	$1.95	$1.75	$1.55
MONO & STEREO			
PS-0196	$19.95	$17.70	$15.70

STEREO



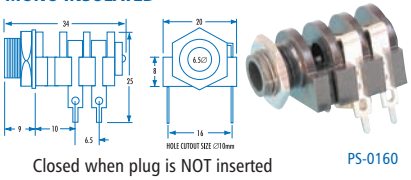
STEREO SWITCHED DPDT	Qty 1+	Qty 10+	Qty 50+
PS-0182	$2.95	$2.60	$2.30
STEREO IN. SWITCHED			
PS-0184	$3.45	$3.05	$2.75

Ever tried to mount a 6.5mm socket in a wooden box? It was impossible! Now it's easy with our unique plastic mounting aid.

SOCKET MOUNTING CUP	Qty 1+	Qty 5+	Qty 10+
HS-8025	$2.50	$2.21	$1.95

6.5mm PCB / Chassis Sockets

MONO INSULATED



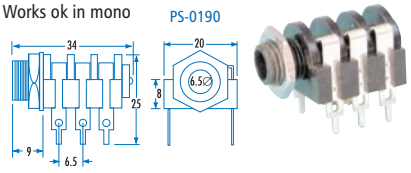
Closed when plug is NOT inserted

SWITCHED	Qty 1+	Qty 10+	Qty 50+
PS-0160	$2.45	$2.15	$1.95

6.5mm PCB / Chassis Sockets (cont)

INSULATED DPST SWITCHED - STEREO

Works ok in mono

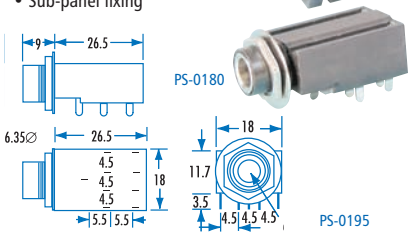


INSULATED UNSWITCHED - STEREO

Works OK in mono

STEREO

- Sub-panel fixing



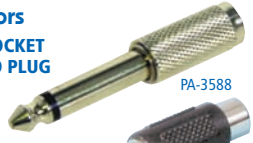
HIGH QUALITY - STEREO

- Switching DPST.
- Black plastic front insert
- Glossy chrome-finish nut.
- Stereo, but can be used for mono.
- Minimum Life: 10,000 insert/withdraw cycles
- Contact Rating: 2.5A at 48VDC

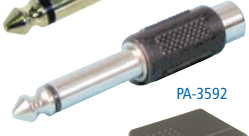
STEREO INSULATED DPST SWITCHED	Qty 1+	Qty 10+	Qty 50+
PS-0190	$2.95	$2.60	$2.30
STEREO INSULATED UNSWITCHED			
PS-0192	$2.75	$2.45	$2.15
STEREO			
PS-0180	$2.95	$2.60	$2.30
STEREO			
PS-0195	$5.95	$5.25	$4.75

6.5mm Adaptors

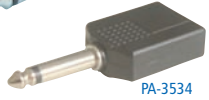
3.5MM MONO SOCKET TO 6.5MM MONO PLUG



6.5MM MONO PLUG TO RCA SOCKET



6.5MM MONO PLUG TO 2 X 6.5MM MONO SOCKETS



6.5MM STEREO PLUG TO 3.5MM STEREO SOCKET

6.5MM STEREO PLUG TO 2 X 6.5MM STEREO SOCKETS

6.5MM STEREO SOCKET TO 6.5MM STEREO SOCKET

	Qty 1+	Qty 10+	Qty 50+
PA-3588	$1.95	$1.75	$1.55
PA-3592	$1.95	$1.75	$1.55
PA-3534	$3.95	$3.45	$3.15
PA-3590	$1.95	$1.75	$1.55
PA-3530	$3.95	$3.45	$3.15
PA-3591	$3.95	$3.45	$3.15

BANANA

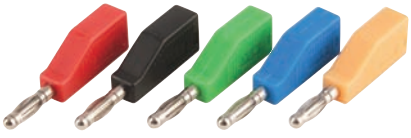
TECH TIP!

Banana plugs & sockets originally started life on test equipment. Their versatility quickly saw them as output connectors for power supplies. When they were integrated with binding posts they quickly saw use as speaker connectors. Now they are everywhere.

Banana Plugs

PLUGS - PIGGY BACK

With this quality piggy back style, another banana plug can be inserted into the back of the plug.



PIGGY BACK		Qty 1+	Qty 10+	Qty 50+
Red	PP-0390	$1.95	$1.75	$1.55
Black	PP-0391	$1.95	$1.75	$1.55
Green	PP-0381	$1.95	$1.75	$1.55
Blue	PP-0382	$1.95	$1.75	$1.55
Orange	PP-0383	$1.95	$1.75	$1.55

Piggy back insulating shroud type. Works with our PS-0420-24 series.

PIGGY BACK		Qty 1+	Qty 10+	Qty 50+
Red	PP-0385	$2.45	$2.15	$1.95
Black	PP-0386	$2.45	$2.15	$1.95
Green	PP-0387	$2.45	$2.15	$1.95
Blue	PP-0388	$2.45	$2.15	$1.95
Orange	PP-0389	$2.45	$2.15	$1.95

PLUGS

PP-0400/02

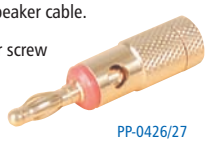
PP-0394/95

4mm		Qty 1+	Qty 10+	Qty 50+
Red	PP-0400	$0.95	$0.85	$0.75
Black	PP-0402	$0.95	$0.85	$0.75
RIGHT ANGLE				
Red	PP-0394	$2.25	$1.95	$1.80
Black	PP-0395	$2.25	$1.95	$1.80

PLUGS - METAL GOLD PLATED

Designed for monster type speaker cable.

- Side entry hole, with finger screw locking action.
- Hole will accept another banana plug or thick cable.



PP-0426/27

PLUGS - METAL GOLD PLATED & LOCKING

These lock into the socket, and cannot be easily removed.

- Gold plated

		Qty 1+	Qty 10+	Qty 50+
Red	PP-0426	$4.95	$4.45	$3.90
Black	PP-0427	$4.95	$4.45	$3.90
LOCKING				
Red	PP-0416	$7.95	$6.95	$6.25
Black	PP-0417	$7.95	$6.95	$6.25

Banana Chassis Sockets

PS-0406/08

4mm		Qty 1+	Qty 10+	Qty 50+
Red	PS-0406	$0.65	$0.57	$0.50
Black	PS-0408	$0.65	$0.57	$0.50

FULLY INSULATED

Works with our PP-0385-89 series.

FULLY INSULATED		Qty 1+	Qty 10+	Qty 50+
Red	PS-0420	$2.25	$1.95	$1.80
Black	PS-0421	$2.25	$1.95	$1.80
Green	PS-0422	$2.25	$1.95	$1.80
Blue	PS-0423	$2.25	$1.95	$1.80
Yellow	PS-0424	$2.25	$1.95	$1.80

Includes a plastic cover to reduce the risk of shorting. Grub screws for internal wire connection. Hole size is 12mm. Cable hole 5mm dia. Available in red or black.

- Gold plated

PP-0436

PP-0437

FULLY INSULATED GOLD		Qty 1+	Qty 10+	Qty 50+
Red	PP-0436	$5.95	$5.25	$4.75
Black	PP-0437	$5.95	$5.25	$4.75

4 WAY BANANA PLUG/SOCKET ASSEMBLY

4 male and 4 female banana plugs. Plugs are labelled +, -, -, + to identify correct polarity.

- Gold plated

		Qty 1+	Qty 10+	Qty 50+
	PP-0440	$9.95	$8.75	$7.75

4mm Banana Socket to Alligator Clip

Available in black or red

		Qty 1+	Qty 10+	Qty 50+
Red	PA-3668	$2.75	$2.45	$2.15
Black	PA-3669	$2.75	$2.45	$2.15

BANANA SOCKET WALLPLATES

- Standard power point size.
- Red & black

4 Way

2 Way

SOCKET		Qty 1+	Qty 2+	Qty 5+
2 Way	PS-0412	$6.95	$6.25	$5.50
4 Way	PS-0414	$8.95	$7.95	$6.95

BANANA SOCKET / BINDING POST WALLPLATES

- Standard power point size.
- Gold plated

2 Way 4 Way 8 Way

SOCKET / BINDING POST		Qty 1+	Qty 2+	Qty 5+
2 Way	PT-0470	$11.95	$10.70	$9.50
4 Way	PT-0472	$16.95	$14.95	$13.35
SOCKET / BINDING POST				
8 Way	PT-0474	$24.95	$22.35	$19.70

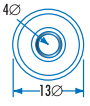
Binding Posts

STANDARD

Incorporates a banana socket.

PREMIUM

Super quality with metal thread.



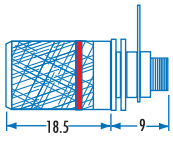
DUAL

- Insulated cable entry.
- Post spacing 19mm.

STANDARD		Qty 1+	Qty 10+	Qty 50+
Blue	PT-0450	$1.65	$1.45	$1.30
Yellow	PT-0451	$1.65	$1.45	$1.30
White	PT-0452	$1.65	$1.45	$1.30
Red	PT-0453	$1.65	$1.45	$1.30
Black	PT-0454	$1.65	$1.45	$1.30
Green	PT-0455	$1.65	$1.45	$1.30
PREMIUM				
Red	PT-0460	$1.95	$1.75	$1.55
Black	PT-0461	$1.95	$1.75	$1.55
Green	PT-0462	$1.95	$1.75	$1.55
DUAL				
	PT-0457	$6.95	$6.25	$5.50

BANANA SOCKETS / BINDING POSTS - METAL

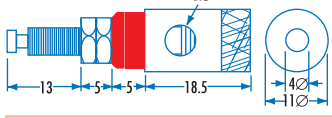
Will accept a banana plug in the end and monster type cable or banana plug in the side. Designed for mounting on the back of amplifiers as mounting thread is only 6mm long



AMPLIFIER MOUNT		Qty 1+	Qty 10+	Qty 50+
Red	PT-0430	$4.95	$4.45	$3.90
Black	PT-0431	$4.95	$4.45	$3.90

SPEAKER BOX MOUNT

These have a hole entry on the side which will accept monster type speaker cable or a banana plug. Thread is 19mm long.

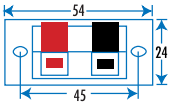


SPEAKER BOX MOUNT		Qty 1+	Qty 10+	Qty 50+
Red	PP-0434	$4.95	$4.45	$3.90
Black	PP-0435	$4.95	$4.45	$3.90

SPEAKER PUSH/SCREW TERMINALS

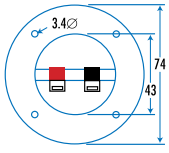
2 WAY
Up to 16AWG cable.

- Mounting holes 45mm apart
- Dimensions: 54(L) x 24(W)mm



LARGE ROUND SPEAKER TERMINAL
Up to 16 AWG cable.

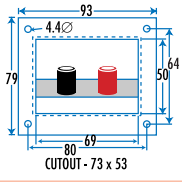
- Cutout 50mm.



2 WAY ROUND	Qty 1+	Qty 5+	Qty 10+
PT-3004	$2.95	$2.60	$2.30

SPEAKER BOX TERMINAL
Ideal if you are running large size speaker cable to your speakers.

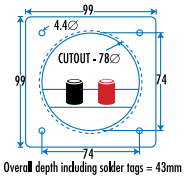
- Dimensions 92(W)x79(H)mm.



SPEAKER BOX	Qty 1+	Qty 5+	Qty 10+
PT-3006	$6.95	$6.25	$5.50

2 WAY GOLD TERMINALS ON A PLATE
Top quality speaker terminal.

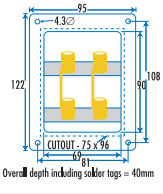
- Plate size 99 x 99mm.
- Hole cutout is round - diameter 76mm.



2 WAY GOLD / PLATE	Qty 1+	Qty 5+	Qty 10+
PT-3012	$11.95	$10.70	$9.50

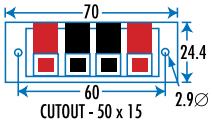
DOUBLE GOLD BANANA / SCREW TERMINALS
4 banana/screw terminals, 2 for positive and 2 for negative. The two like terminals are connected by a metal strap, which can be removed if you wish to run bi-wiring or passive bi-amping or electronic crossovers. You can also loop from one box to the other.

- Banana sockets have a 6mm hole to accept Monster type cable.
- Cutout: 73(W) x 97(H)mm
- Dimensions: 95(W) x 122(H)mm



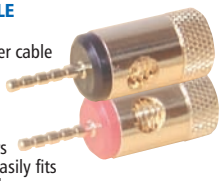
DOUBLE GOLD	Qty 1+	Qty 5+	Qty 10+
PT-3010	$16.95	$14.95	$13.35

4 WAY - UP TO 16AWG

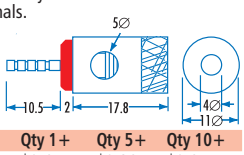


2 WAY		Qty 1+	Qty 5+	Qty 10+
	PT-3000	$1.75	$1.55	$1.40
4 WAY				
	PT-3002	$2.95	$2.60	$2.30

JUMBO SPEAKER CABLE TERMINALS
Can't fit your large speaker cable into your speaker box spring terminals? Problem solved!! Simply terminate the thick cable into these gold connectors and the 1.5mm dia. pin easily fits into speaker rear terminals.



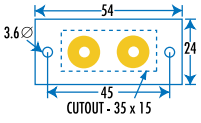
- Cable entry is 6mm.
- Gold plated



		Qty 1+	Qty 5+	Qty 10+
Red	PT-3020	$2.65	$2.30	$2.07
Black	PT-3021	$2.65	$2.30	$2.07

BANANA / SCREW TYPE
2 Way Gold Terminals
Top quality speaker terminal with gold banana sockets which also have a huge hole (6mm) to accept Monster type speaker cable.

- Supplied with gasket.
- Dimensions: 54(W) x 24(H)mm.



2 WAY GOLD	Qty 1+	Qty 5+	Qty 10+
PT-3008	$9.95	$8.75	$7.75

VALVE SOCKETS

9 PIN & 8 PIN
This unit is moulded from high grade thermo setting resin. The pins are adequately plated and have deep solder terminals, sufficient for several hard wiring points per pin. Sturdy flange mount for fitting above or below the chassis.

Pins	Cat.	Qty 1+	Qty 10+	Qty 50+
9	PS-2082	$5.95	$5.25	$4.75
8	PS-2080	$6.95	$6.25	$5.50

MICROPHONE SERIES

TECH TIP!

Microphone plugs and sockets did indeed start off as connectors for microphones, during & after WWII in the 20th century. The fact that they can be screw locked together made them useful for other things as well. Today they are commonly used for DC connection from a front panel. The contacts are reliable up to 10A.

MICROPHONE LINE FEMALE
- Solid metal machined body
- Nickel plated
- Also suitable for secure, low voltage DC connection
- 10A max 32VDC

2 Pin

4 Pin

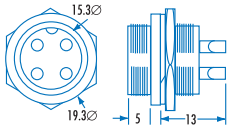
5 Pin

		Qty 1+	Qty 10+	Qty 50+
2 PIN	PS-2014	$2.95	$2.60	$2.30
4 PIN	PS-2012	$2.95	$2.60	$2.30
5 PIN	PS-2018	$3.45	$3.05	$2.75

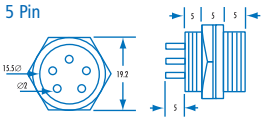
MICROPHONE CHASSIS MALE
- Solid metal machined body
- Nickel plated
- 10A max 32VDC

2 Pin

4 Pin



5 Pin



		Qty 1+	Qty 10+	Qty 50+
2 PIN	PP-2013	$2.95	$2.60	$2.30
4 PIN	PP-2010	$2.95	$2.60	$2.30
5 PIN	PP-2017	$3.45	$3.05	$2.75

TOSLINK ADAPTORS

TOSLINK ADAPTOR FEMALE / FEMALE
- Enables shorter optical leads to be extended

TOSLINK FEMALE TO OPTICAL 3.5mm MALE

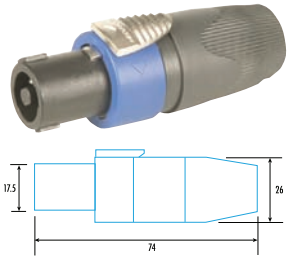
FEMALE TO FEMALE	Qty 1+	Qty 4+	Qty 10+
PA-3575	$6.95	$6.25	$5.50
FEMALE TO 3.5 MALE			
PA-3574	$5.95	$5.25	$4.75

"SPEAKON" LOUDSPEAKER

NEUTRIK Heavy duty, fail-safe speaker connectors

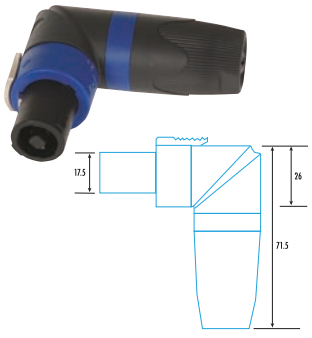
- Locking ring • 30 amp continuous current • Solderless termination
- The standard in high power PA speaker connections

IN LINE SPEAKER CONNECTOR 4 POLE



Cat.	Qty 1+	Qty 10+	Qty 50+
PP-1090	$14.95	$13.35	$11.70

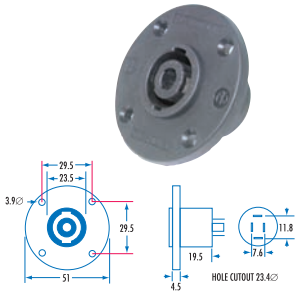
IN LINE SPEAKER PLUG



Cat.	Qty 1+	Qty 10+	Qty 50+
PP-1091	$19.95	$17.70	$15.70

ROUND SPEAKER BIN CHASSIS MOUNT PLASTIC

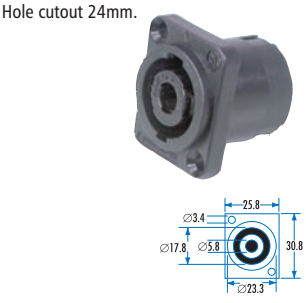
Hole cutout 24mm.



Cat.	Qty 1+	Qty 10+	Qty 50+
PS-1094	$11.95	$10.70	$9.50

SQUARE CHASSIS MOUNT PLASTIC

Hole cutout 24mm.

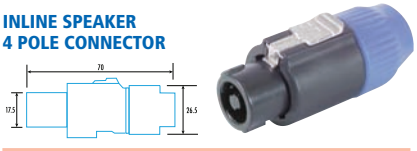


Cat.	Qty 1+	Qty 10+	Qty 50+
PS-1092	$11.95	$10.70	$9.50

AUDIO - ECONOMY RANGE

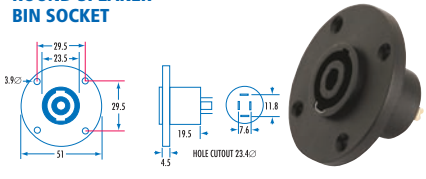
SOANAR

INLINE SPEAKER 4 POLE CONNECTOR



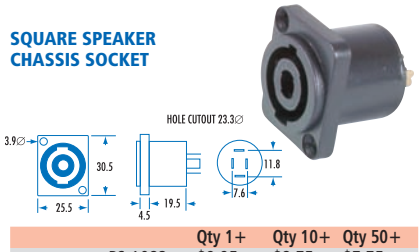
	Qty 1+	Qty 10+	Qty 50+
PP-1080	$12.95	$11.35	$10.35

ROUND SPEAKER BIN SOCKET



	Qty 1+	Qty 10+	Qty 50+
PS-1084	$9.95	$8.75	$7.75

SQUARE SPEAKER CHASSIS SOCKET



	Qty 1+	Qty 10+	Qty 50+
PS-1082	$9.95	$8.75	$7.75

Speakon Lead Extender

Connects Speakon leads together to extend cable runs as far as you need to.

- ABS construction.

	Qty 1+	Qty 10+	Qty 50+
PA-3689	$12.95	$11.35	$10.35

Speakon Audio Leads

Speakon connectors are the standard for speaker conections in PA and sound reinforcement applications, and if you're building or installing a system they're the only way to go. You could buy the cable and connectors and put them together, or buy these excellent ready-made cable assemblies. Available in lengths up to 20m for every application

		Qty 1+	Qty 4+	Qty 10+
5 metre	WA-7100	$24.95	$22.35	$19.70
10 metre	WA-7102	$34.95	$31.45	$27.90
15 metre	WA-7104	$69.95	$62.95	$55.95
20 metre	WA-7106	$99.00	$88.95	$78.95

XLR - AMPHENOL

TECH TIP!

Typically used for balanced connections such as professional microphones; these connectors are 3 pin and lock on to the socket. The confusion over whether pin 2 or 3 is hot has only relatively recently been resolved. The Standard has been defined by the Audio Engineering Society which we have outlined on the bottom of page 138.

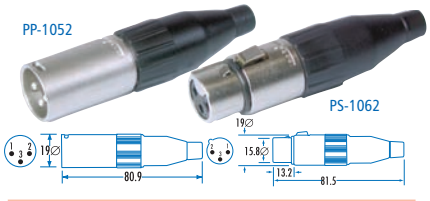
Amphenol have taken over the genuine Cannon brand.

LINE - 3 PIN

Amphenol

- Solder type
- Diecast metal shell

PP-1052



3 PIN SOLDER		Qty 1+	Qty 10+	Qty 50+
Male	PP-1052	$6.50	$5.75	$4.95
Female	PS-1062	$7.95	$6.95	$6.25

LINE - 4 PIN

Cannon/Amphenol Silver

Amphenol

- Diecast metal shell
- Nickel plated

PP-1040

4 PIN		Qty 1+	Qty 10+	Qty 50+
Male	PP-1040	$11.95	$10.70	$9.50
Female	PS-1042	$15.95	$14.35	$12.70

LINE - 3 PIN IDC

Amphenol

- Diecast metal shell
- Insulation displacement (solderless)

PP-1056

3 PIN SOLDERLESS		Qty 1+	Qty 10+	Qty 50+
Male	PP-1056	$7.95	$6.95	$6.25
Female	PS-1066	$9.95	$8.75	$7.75

CHASSIS MOUNT D-SERIES XLR SOCKETS

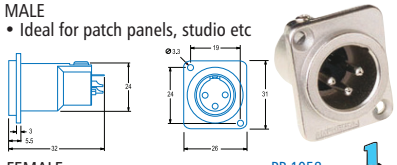
High quality Amphenol brand XLR 3 pole chassis mount sockets. Can be front or rear mounted in P or D series panels.

Amphenol

- 24mm hole cut-out
- D series flange
- Stamped phosphor
- Bronze contacts
- Nickel finish
- Max Wire Gauge: 14AWG
- Flammability Rating: UL94-V0
- Current Carrying Capacity: 15A
- RoHS Compliant.

MALE

- Ideal for patch panels, studio etc

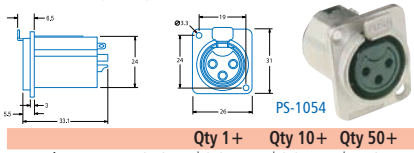


PP-1058

1 YEAR WARRANTY

FEMALE

- Ideal for balanced microphone inputs on mixers, patch panels etc.



		Qty 1+	Qty 10+	Qty 50+
Male	PP-1058	$6.95	$6.25	$5.50
Female	PS-1054	$7.95	$6.95	$6.25

CANNON / XLR TYPE

3 Pin Line

SOANAR

BLACK

RIGHT ANGLE - BLACK
- Diecast metal shell

3 PIN BLACK		Qty 1+	Qty 10+	Qty 50+
Male	PP-1012	$4.50	$3.95	$3.60
Female	PS-1015	$4.95	$4.45	$3.90
3 PIN R/A BLACK				
Male	PP-1020	$9.95	$8.75	$7.75
Female	PS-1022	$9.95	$8.75	$7.75

Combo XLR / 6.35mm Stereo Socket Switched

Combined 3 pole XLR & 6.35mm stereo jack for balanced microphone or line. It will accept 6.35mm mono, 6.35mm stereo or 3-pin male XLR.

- Suits D-series panel cut-outs.
- Non-locking.
- Panel or PCB mounting
- Switched • Independent inputs
- Gold plated contacts

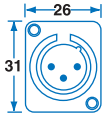
	Qty 1+	Qty 10+	Qty 50+
PS-1069	$9.95	$8.75	$7.75

3 pin Chassis - Plastic

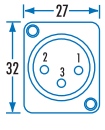
Hole cutout 22mm.

- Black ABS plastic body

MALE



FEMALE



PLASTIC		Qty 1+	Qty 10+	Qty 50+
Male	PP-1016	$3.95	$3.45	$3.15
PLASTIC				
Female	PS-1018	$3.95	$3.45	$3.15

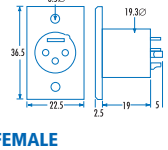
3 Pin Chassis - Metal

Hole cutout 20mm. Black.

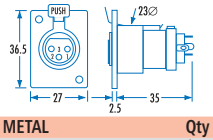
SOANAR

- Diecast body

MALE
- Hole cutout 20mm



FEMALE
- Hole cutout 24mm



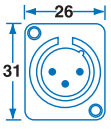
METAL		Qty 1+	Qty 10+	Qty 50+
Male	PP-1010	$4.50	$3.95	$3.60
METAL				
Female	PS-1014	$6.50	$5.75	$4.95

Chassis Metal

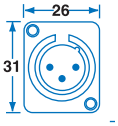
SOANAR

- Small size
- Hole cutout 24mm.
- Diecast body
- Nickel plated

3 PIN MALE



3 PIN FEMALE



SMALL SIZE Metal		Qty 1+	Qty 10+	Qty 50+
Male	PP-1023	$5.95	$5.25	$4.75
Female	PS-1024	$6.95	$6.25	$5.50

Rubber XLR Cover Boot

This cover will mean you can effectively operate a PA or sound system outdoors in inclement weather without undue damage. This flexible boot slips over the entire XLR - XLR connection to keep water and dust out. Even if you aren't planning to use your system in the rain, they're still indispensable for protecting permanent connections from damage and dust. 120mm long.

	Qty 1+	Qty 10+	Qty 50+
PM-1034	$1.65	$1.45	$1.30

XLR Adaptors

SOANAR

3 PIN ADAPTORS

		Qty 1+	Qty 10+	Qty 50+
Male	PA-3684	$12.95	$11.35	$10.35
Female	PA-3686	$14.95	$13.35	$11.70

3 PIN CANNON TYPE SOCKET TO 6.5MM PLUG ADAPTOR

These are high quality, all metal construction adaptors suitable for stage or studio use. They're ideal for converting microphone cannon leads to 6.5mm plugs ready for 4- track recorders or any other audio equipment with 6.5mm sockets

		Qty 1+	Qty 10+	Qty 50+
Male	PA-3682	$12.95	$11.35	$10.35
Female	PA-3680	$8.95	$7.95	$6.95

XLR TO RCA ADAPTOR

		Qty 1+	Qty 10+	Qty 50+
Male	PA-3800	$9.95	$8.75	$7.75
Female	PA-3802	$12.95	$11.35	$10.35

MINI XLR

3, 4 Pin Line

SOANAR

- Diecast body
- Nickel plated

3 PIN

3 PIN		Qty 1+	Qty 10+	Qty 50+
Male	PP-1910	$5.95	$5.25	$4.75
3 PIN				
Female	PS-1924	$6.95	$6.25	$5.50

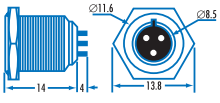
4 PIN

4 PIN		Qty 1+	Qty 10+	Qty 50+
Male	PP-1912	$6.95	$6.25	$5.50
4 PIN				
Female	PS-1926	$6.95	$6.25	$5.50

3, 4 Pin Chassis

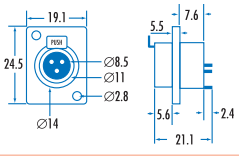
SOANAR

3 PIN MALE
- Diecast body
- Nickel plated



3 PIN FEMALE

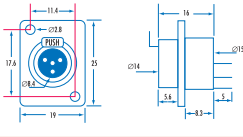
Cut out 15mm.



3 PIN		Qty 1+	Qty 10+	Qty 50+
Male	PP-1916	$7.95	$6.95	$6.25
3 PIN				
Female	PS-1930	$9.95	$8.75	$7.75

4 PIN FEMALE

Cut out 15mm



4 PIN		Qty 1+	Qty 10+	Qty 50+
Male	PP-1918	$7.95	$6.95	$6.25
4 PIN				
Female	PS-1932	$9.95	$8.75	$7.75

XLR WIRING

The Standard is defined by the Audio Engineering Society in AES14-1992(r1998)

Pin 1: Shield / Ground

Pin 2: Hot / in Phase / +

Pin 3: Cold / Out of Phase / -

To create an unbalanced connection, pin 1 & pin 3 are connected to ground & pin 2 carries the signal.

It should be noted that there is a lot of equipment (particularly in the US) that has pin 2 and pin 3 designations reversed (i.e. 3 hot, 2 cold). Manufacturers are adopting the Standard on all new equipment.

WALLPLATES STAINLESS STEEL

No matter what audio installation you're contemplating, you're sure to find a wallplate to give your room that pro look. Finished in attractive stainless steel, these cost-effective wallplates have all the popular audio connectors, or use a blank to customise your own. Ideal for Hi-Fi installations, home studios, home theatre or just a neat solution to running an AV extension to another room.

Blank Wallplate

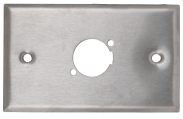
Stainless steel blank wallplate

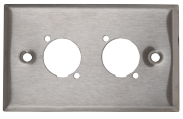
	Cat.	Qty 1+	Qty 2+	Qty 5+
Blank	PS-0550	$3.95	$3.45	$3.15

XLR - Blank & Loaded

Pre-punched blanks for XLR sockets
- Sockets not included

Single: PS-0551 Double: PS-0552





	Cat.	Qty 1+	Qty 2+	Qty 5+
Single Blank	PS-0551	$4.50	$3.95	$3.60
Double Blank	PS-0552	$4.95	$4.45	$3.90

XLR Sockets

Pre-punched wallplate with loaded XLR socket(s)

RELATED PRODUCT...
Want more wallplates see page 463

Single 3P female XLR socket Cat. PS-0553

Double 3P Female XLR socket Cat. PS-0554

Single 3P Male XLR socket Cat. PS-0555

Double 3P Male XLR socket Cat. PS-0556

NEW LOWER PRICE

		Qty 1+	Qty 2+	Qty 5+
Single XLR	PS-0553	$6.95	$6.25	$5.50
Double XLR	PS-0554	$9.95	$8.75	$7.75
Single XLR	PS-0555	$3.95	$3.45	$3.15
Double XLR	PS-0556	$5.95	$5.25	$4.75

6.5mm Socket - Locking

Stainless steel wallplates with single or double 6.5mm (1/4") locking socket(s).

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 5+
Single 1/4"	PS-0557	$4.95	$4.45	$3.90
Double 1/4"	PS-0558	$6.95	$6.25	$5.50

4 Pole Speakon Socket

Single 4 pole Speakon socket Cat. PS-0559

Double 4 pole Speakon socket Cat. PS-0560

NEW LOWER PRICE

		Qty 1+	Qty 2+	Qty 5+
Single	PS-0559	$3.95	$3.45	$3.15
Double	PS-0560	$5.95	$5.25	$4.75

Rubber Cover for XLR Socket

Rubber Cover for Male XLR Socket Cat. PS-0561

Plastic Cover for Female XLR Socket Cat. PS-0562

		Qty 1+	Qty 10+	Qty 50+
Suit Male	PS-0561	$0.50	$0.45	$0.40
Suit Female	PS-0562	$1.00	$0.90	$0.80

HARSH ENVIRONMENT

IP67 Rated Multiple Pole Harsh Environment Connectors

C16-1 series connectors offer 3 or 6 pole with pre-engaging earth contact. The mating parts screw together securely to provide environmental protection to IP67.

Specifications	3 Pole + PE*	6 Pole + PE*
Current rating	16A	10A
Voltage rating	380VAC 450VDC	380VAC 450VDC
Insulation resistance	>10Gohms	>10Gohms
Contact resistance	<5mohms	<5mohms
Max wire size	2.5mm²	0.75mm²

Environmental	
Temperature range	-40°C to +100°C
Protection	IP67 to IEC60529/ DIN40050
Housing	Polyamide 66 Nylon
Strain relief	Screw clamp & Gland Nut

HIRSCHMANN

3 POLE

Note: *Means Pre-Engaging

Type		Qty 1+	Qty 10+	Qty 50+
PE Line Plug	PP-1006	$17.95	$15.95	$14.35
PE Line Skt	PS-1007	$17.95	$15.95	$14.35
PE Chassis Plug	PP-1008	$12.95	$11.35	$10.35
PE Chassis Skt	PS-1009	$12.95	$11.35	$10.35

6 POLE

Type		Qty 1+	Qty 10+	Qty 50+
PE Line Plug	PP-1000	$19.95	$17.70	$15.70
PE Line Skt	PS-1001	$19.95	$17.70	$15.70
PE Chassis Plug	PP-1002	$13.95	$12.35	$10.95
PE Chassis Skt	PS-1003	$13.95	$12.35	$10.95

Type		Qty 1+	Qty 10+	Qty 50+
Plug Dust Cap	PP-1004	$9.95	$8.75	$7.75
Skt Dust	PS-1005	$9.95	$8.75	$7.75

HARSH ENVIRONMENT

LTW IP67 Harsh Environment Circular Connectors

Perfect for harsh environments such as marine, industrial, outdoor, automotive, etc.

1 YEAR WARRANTY

- IP67 rated
- Locking bayonet connection
- Gold plated
- UL rated
- Wide temperature: -40˚C to 105˚C
- Solder pins
- 2pin versions rated to 5A
- 4 and 6 pin versions rated to 2A

PS-0541

PP-0542

PS-0543

PP-0544
PS-0545
PP-0546
PS-0547

	Qty 1+	Qty 10+	Qty 50+
2 Pin Line Socket PS-0541	$10.95	$9.75	$8.75
2 Pin Panel Mount Plug PP-0542	$8.95	$7.95	$6.95
4 Pin Line Socket PS-0543	$12.95	$11.35	$10.35
4 Pin Panel Mount Plug PP-0544	$10.95	$9.75	$8.75
6 Pin Line Socket PS-0545	$14.95	$13.35	$11.70
6 Pin Panel Mount Plug PP-0546	$12.95	$11.35	$10.35
Dust Cap to suit Panel Plug PS-0547	$6.95	$6.25	$5.50

DIN

TECH TIP!

Originally a German standard, these connectors are available in versions from 2 to 13 pins. Once widely used, these are now seen less on AV equipment. The 2 pin version is used for some loudspeakers and 5 pin version is still used for connecting MIDI electronic musical instruments & older PC keyboards.

Line DIN Plugs

2, 3 PIN PLUGS
- Nickel plated

5 PIN PLUGS
- Nickel plated

6, 7, 8 PIN PLUGS
- Nickel plated

		Qty 1+	Qty 10+	Qty 50+
2 PIN	PP-0300	$0.65	$0.57	$0.50
3 PIN	PP-0302	$0.95	$0.85	$0.75
5 PIN	PP-0304	$1.00	$0.90	$0.80
5 PIN 240°	PP-0305	$1.25	$1.10	$0.97
5 PIN PREMIUM DIE CAST	PP-0306	$3.75	$3.30	$2.95
6 PIN	PP-0308	$1.45	$1.30	$1.15
7 PIN	PP-0310	$1.65	$1.45	$1.30
8 PIN	PP-0312	$1.85	$1.65	$1.45

CONNECTORS

DIN (CONTINUED)

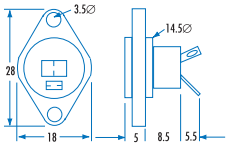
LINE SOCKETS - 5, 6, 8 PIN

PS-0352 PS-0355 PS-0358

		Qty 1+	Qty 10+	Qty 50+
5 PIN	PS-0352	$1.85	$1.65	$1.45
6 PIN	PS-0355	$2.45	$2.15	$1.95
8 PIN	PS-0358	$2.95	$2.60	$2.30

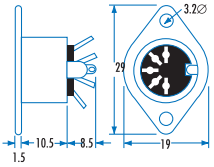
2, 5, 6, 8 PIN PANEL SOCKETS

- Nickel plated



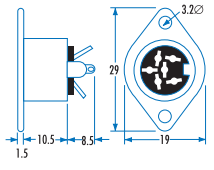
PS-0340

Hole cutout 15mm.



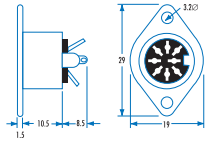
PS-0348

Hole cutout 15mm.



PS-0354

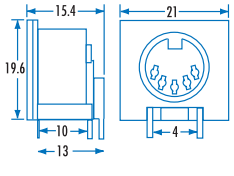
Hole cutout 15mm.

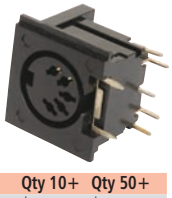


PS-0359

		Qty 1+	Qty 10+	Qty 50+
2 PIN	PS-0340	$1.45	$1.30	$1.15
5 PIN	PS-0348	$1.65	$1.45	$1.30
6 PIN	PS-0354	$1.95	$1.75	$1.55
8 PIN	PS-0359	$2.95	$2.60	$2.30

5 PIN RIGHT ANGLE PCB SOCKET





5 PIN RIGHT ANGLE	Qty 1+	Qty 10+	Qty 50+
PS-0350	$1.95	$1.75	$1.55

MINI DIN

4 PIN MINI DIN PLUGS

PP-0362 PP-0364 PP-0365

NICKEL PLATED	Qty 1+	Qty 10+	Qty 50+
PP-0362	$3.95	$3.45	$3.15
	Qty 1+	Qty 10+	Qty 50+
PP-0364	$1.75	$1.55	$1.40
GOLD PLATED - 6mm			
PP-0365	$5.95	$5.25	$4.75

6 PIN MINI DIN PLUG

NICKEL PLATED	Qty 1+	Qty 10+	Qty 50+
PP-0366	$1.95	$1.75	$1.55

8 PIN MINI DIN PLUG

Suits Macintosh computers.

NICKEL PLATED	Qty 1+	Qty 10+	Qty 50+
PP-0370	$1.95	$1.75	$1.55

4, 6, 8 PIN LINE SOCKETS

PS-0372 PS-0368 PS-0374

		Qty 1+	Qty 10+	Qty 50+
4 PIN	PS-0372	$1.95	$1.75	$1.55
6 PIN	PS-0368	$2.25	$1.95	$1.80
8 PIN	PS-0374	$2.95	$2.60	$2.30

M8 CIRCULAR

Commonly used in process control instrumentation.
All connectors are field installable.

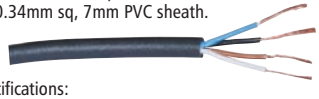
PP-4300 PS-4301

NEW LOWER PRICE

PLUGS		Qty 1+	Qty 10+	Qty 50+
3 Way	PP-4300	$14.95	$13.35	$11.70
4 Way	PP-4302	$19.95	$17.70	$15.70
SOCKETS				
3 Way	PS-4301	$14.95	$13.35	$11.70
4 Way	PS-4303	$14.95	$13.35	$11.70

M8 Circular Connector Cable

4 core colour coded, suitable for industrial sensor wiring.
4 x 0.34mm sq, 7mm PVC sheath.



Specifications:
Sheath: Black PUR, V90 flame retardant.
Conductor: Plain copper wire Roll length 100m
Insulation: V75

CABLE TO SUIT	Per metre	1+Rolls	5+Rolls
WB-2050	$6.50	$530.00	$445.00

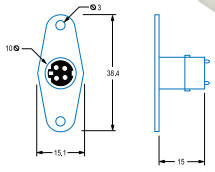
MINI DIN / S-VIDEO

4, 6, 8 PIN PANEL SOCKETS

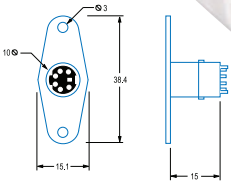
Cutout 10mm.

- Nickel plated

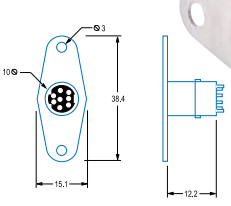
PS-0376



PS-0377



PS-0378



		Qty 1+	Qty 10+	Qty 50+
4 PIN	PS-0376	$2.75	$2.45	$2.15
6 PIN	PS-0377	$2.75	$2.45	$2.15
8 PIN	PS-0378	$2.95	$2.60	$2.30

Mini DIN / S-Video Adaptors

S-VIDEO PLUG TO RCA VIDEO SOCKET

- Gold plated male S-Video and RCA socket.

PA-3577

S-VIDEO TO RCA VIDEO

Dub S-Video video signals to RCA equipped machines.

- Gold plated S-Video & RCA sockets.

PA-3578

S-VIDEO FEMALE TO RCA MALE VIDEO

Dub S-VHS video signals to RCA equipped machines.

- Gold plated S-Video socket & RCA plug.

PA-3579

S-VIDEO JOINER

Inline four pin socket to socket.

- Gold plated

PA-3573

6 PIN MINI DIN ADAPTOR

Female to female adaptor.

- Enables shorter mini DIN leads to be extended

PA-0878

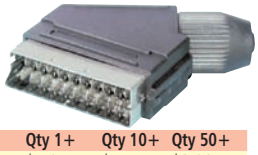
	Qty 1+	Qty 4+	Qty 10+
PA-3577	$8.95	$7.95	$6.95
PA-3578	$7.95	$6.95	$6.25
PA-3579	$8.95	$7.95	$6.95
PA-3573	$9.95	$8.75	$7.75
PA-0878	$7.95	$6.95	$6.25

SCART

TECH TIP!

Carries stereo audio, composite video, S-video & RGB. Used to carry signals from AV source to your TV and also allow recording to other sources, for example video recorders. Originated in Europe.

21 PIN PLUG



	Qty 1+	Qty 10+	Qty 50+
PP-0580	$4.95	$4.45	$3.90

SCART PLUG TO RGB ADAPTOR

PA-3667

SCART PLUG TO 3 RCA & S-VIDEO SOCKETS

An excellent adaptor that converts from male Scart to female RCA and S-Video. Switchable - in or out.

PA-3659

SCART ADAPTOR

- Female to female
- Enables shorter SCART leads to be extended

PA-3650

SCART TO RGB	Qty 1+	Qty 4+	Qty 10+
PA-3667	$14.95	$13.35	$11.70
SCART TO RCA / S-VIDEO			
PA-3659	$14.95	$13.35	$11.70
SCART ADAPTOR			
PA-3650	$2.95	$2.60	$2.30

HDMI

HDMI SOCKET TO SOCKET

HDMI Socket to Socket Gender IC Adaptor

PA-3640

HDMI PLUG TO DVI-D

HDMI plug to DVI-D socket adaptor

PA-3642

HDMI SOCKET TO DVI-D PLUG ADAPTOR

Connect a computer DVI-D output directly to a TV or projector with this simple converter. Plug the converter into the DVI-D port on a computer and connect a HDMI cable to the TV or projector. Can also function in reverse to connect HDMI cables to a display with a HDCP compatible DVI-D port. HDMI cable not included.

PA-3644

MINI HDMI PLUG TO HDMI SOCKET ADAPTOR

Ideal for camcorders or other devices utilising the mini HDMI standard socket.

PA-3645

HDMI SOCKET TO SKT	Qty 1+	Qty 10+	Qty 50+
PA-3640	$16.95	$14.95	$13.35
HDMI PLUG TO DVI-D			
PA-3642	$16.95	$14.95	$13.35
HDMI SKT TO DVI-D			
PA-3644	$16.95	$14.95	$13.35
MINI HDMI PLUG TO SKT			
PA-3645	$9.95	$8.75	$7.75

HDMI

HDMI Plug to HDMI Socket Swivel Adaptor

Connect HDMI cables where space is an issue such as wall mounted TV's with this adaptor which swivels up to 180º.

- Gold plated connectors

	Qty 1+	Qty 10+	Qty 50+
PA-3647	$12.95	$11.35	$10.35

Micro HDMI Plug to HDMI Socket Adaptor

Connects your Smart phone, camera or other device with micro HDMI socket to any TV with a HDMI connection.

- Colour: Black
- Gold plated connectors

	Qty 1+	Qty 10+	Qty 50+
PA-3649	$9.95	$8.75	$7.75

COAXIAL - PAL

TECH TIP!

These are the standard aerial connectors for TVs and video recorders. They are often called "Belling-Lee" or "PAL" connectors.

75 Ohm Line Plugs

PLASTIC

PP-0600

NICKEL PLATED

PP-0602

GOLD PLATED

Best quality plug.

- Solderless.
- 8mm cable dia

PP-0604

R/A SOLDERLESS

PP-0606

CRIMP RG59

PP-0607

CRIMP RG6

PP-0608

JOINER

PS-0622

PLASTIC		Qty 1+	Qty 10+	Qty 50+
	PP-0600	$1.95	$1.75	$1.55
NICKEL PLATED				
	PP-0602	$2.45	$2.15	$1.95
GOLD PLATED				
	PP-0604	$7.95	$6.95	$6.25
R/A SOLDERLESS				
	PP-0606	$2.95	$2.60	$2.30
CRIMP				
RG59	PP-0607	$2.95	$2.60	$2.30
RG6	PP-0608	$2.95	$2.60	$2.30
JOINER				
	PS-0622	$1.75	$1.55	$1.40

75 Ohm Line Sockets

PLASTIC

PS-0610

NICKEL PLATED

PS-0614

RIGHT ANGLE SOLDERLESS

PS-0612

CRIMP RG59

PS-0611

CRIMP RG6

PS-0613

JOINER

PS-0620

GOLD

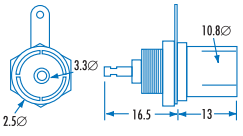
PS-0605

PLASTIC		Qty 1+	Qty 10+	Qty 50+
	PS-0610	$1.75	$1.55	$1.40
NICKEL PLATED				
	PS-0614	$2.45	$2.15	$1.95
RIGHT ANGLE SOLDERLESS				
	PS-0612	$3.45	$3.05	$2.75
CRIMP				
RG59	PS-0611	$2.75	$2.45	$2.15
RG6	PS-0613	$2.75	$2.45	$2.15
GOLD	PS-0605	$7.95	$6.95	$6.25
JOINER	PS-0620	$1.75	$1.55	$1.40

75 Ohm Chassis Socket

75 OHM CHASSIS MOUNT SOCKET

- Nickel plated
- High quality product



Hole cutout 9.5mm.

	Qty 1+	Qty 10+	Qty 50+
PS-0628	$2.95	$2.60	$2.30

75 Ohm Joiner

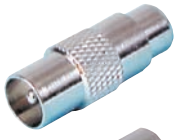
COAX CABLE JOINER

Hardwire connection of 50 to 75Ω coax cable.

	Qty 1+	Qty 10+	Qty 50+
PS-0618	$2.95	$2.60	$2.30

COAXIAL - ADAPTORS

PAL PLUG TO RCA SOCKET PA-3675



PAL SOCKET TO PAL SOCKET PS-0620

PAL PLUG TO PAL PLUG PS-0622

PAL PLUG TO PAL SOCKET RIGHT ANGLE PA-3679

F SOCKET TO PAL SOCKET PA-3656

PAL PLUG TO F-81 PA-3653

PAL PLUG TO F-81 SOCKET - RIGHT ANGLE PA-3673

F-59 PLUG TO PAL SOCKET PA-3672

F-59 PLUG TO PAL PLUG PA-3671

F-59 PLUG TO F-81 SKT RIGHT ANGLE PA-3674

F-59 PLUG TO PLUG PA-0633

		Qty 1+	Qty 4+	Qty 10+
	PA-3675	$3.95	$3.45	$3.15
	PS-0620	$1.75	$1.55	$1.40
	PS-0622	$1.75	$1.55	$1.40
	PA-3679	$4.95	$4.45	$3.90
	PA-3656	$3.95	$3.45	$3.15
	PA-3653	$3.95	$3.45	$3.15
	PA-3673	$4.95	$4.45	$3.90
	PA-3672	$1.95	$1.75	$1.55
	PA-3671	$2.95	$2.60	$2.30
	PA-3674	$3.95	$3.45	$3.15
	PA-0633	$1.65	$1.45	$1.30

COAXIAL - F TYPE

TECH TIP!

Used mainly for RF signals such as those for satellite dishes, cable boxes or TV aerials. The highest quality connections between your cable/satellite wallplate output and the cable/satellite box. Standard emerged from the US cable TV industry. Now the Aust./NZ standard.

F Type Plugs

F connectors recommended for all new TV installations

SUITS RG59
This plug comes with a crimping ring for RG59 coax.
- Fits our WB-2002 & WB-2004.
- Ideal for pro and weekend installers.
- Nickel plated

PP-0640

SUITS RG6
With a crimping ring for RG6 coax.
- Fits our (Belden) WB-2008 & WB-2009.
- See tool section for crimpers (TH-1950/56 or TH-1878).
- Nickel plated

PP-0641

RELATED PRODUCT...
See pages 45 for Crimping Tools & page 119 for Coaxial Cable

F-59 CRIMP PLUG FOR RG6
With integral crimp ring.
- Nickel plated

PP-0643

F-59 CRIMP PLUG FOR RG59U
With integral crimp ring.
- Nickel plated

PP-0644

F-59 CRIMP PLUG FOR RG59
As used by TV installers, heavy gauge with a passivated brass coloured zinc finish.

PP-0702

F-59 CRIMP CONNECTOR FOR RG6 CABLE
As used by cable TV installers, heavy gauge with a passivated finish.

PP-0704

F-59 WATERPROOF COMPRESSION PLUG FOR RG6 CABLE
F-59 line plug for RG6 quad shield cable. Waterproof with dual crimp points for the cable and dual O-rings on the thread. Foxtel approved. Compression tool to suit: TH-1803.

PP-0708

SUITS RG59 or RG6 CABLE		Qty 1+	Qty 10+	Qty 50+
Each	PP-0640	$0.95	$0.85	$0.75
Each	PP-0702	$1.95	$1.75	$1.55
Each	PP-0643	$1.25	$1.10	$0.97
Each	PP-0641	$0.95	$0.85	$0.75
Each	PP-0644	$1.25	$1.10	$0.97
Each	PP-0704	$1.95	$1.75	$1.55
Each	PP-0708	$1.95	$1.75	$1.55

F Type Twist On Plugs

These are ideal crimpless but strong F-plugs for low volume applications. Highly recommended.

F-59 TYPE SCREW-ON PLUGS
Simply strip coax back about 12mm, fold braid/foil back over the plastic outer sheath. Trim about 8mm of foam insulation from centre conductor. Then simply screw the knurled connector on the cable until you see sufficient centre conductor out of the front of the connector. The foam insulation will centrally locate this conductor.
- Nickel plated

SUITS RG59 CABLE	Qty 1+	Qty 10+	Qty 50+
PP-0637	$1.45	$1.30	$1.15
SUITS RG6 CABLE			
PP-0638	$1.45	$1.30	$1.15

CRIMPLESS F-TYPE PLUG TO RG6
No crimper or soldering required.

	Qty 1+	Qty 10+	Qty 50+
PP-0671	$2.95	$2.60	$2.30

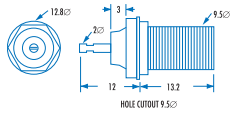
F-59 TOOL-LESS COMPRESSION CRIMP CONNECTOR
No crimping tool required. Just strip back the outer and inner sheath, fold the braid back and push the connector on. The crimp is reliable with high mechanical strength and will never come off. Suitable for RG6 quad shield coax.

	Qty 1+	Qty 10+	Qty 50+
PP-0677	$2.50	$2.21	$1.95

F Type Sockets

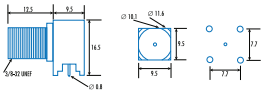
F-61 CHASSIS SOCKET
Hole cutout 9.5mm.
- Nickel plated

PS-0645



F-61 PCB MOUNT SOCKET
- PCB mounting • Nickel plated

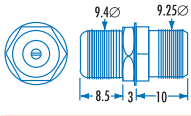
PS-0730



	Qty 1+	Qty 10+	Qty 50+
PS-0645	$1.75	$1.55	$1.40
PS-0730	$2.25	$1.95	$1.80

F Type Adaptors

F-81 INLINE JOINER
- Nickel plated



	Qty 1+	Qty 10+	Qty 50+
PS-0646	$1.95	$1.75	$1.55

F-59 TYPE 75 OHM DUMMY LOAD
Simply screw on to unused ports of splitters, etc to maintain good VSWR.
- Nickel plated

DUMMY LOAD	Qty 1+	Qty 10+	Qty 50+
PP-0639	$1.50	$1.35	$1.20

BNC CONNECTORS

TECH TIP!

BNC plugs lock on to the socket and are used for some digital audio connections as well as for video connections, particularly CCTV.

Male Line Plugs

SOLDER TYPE
- Nickel plated

PP-0650

CRIMP RG59

PP-0689

CRIMP RG6

PP-0688

SOLDERLESS TYPE

PP-0652

SOLDER		Qty 1+	Qty 10+	Qty 50+
	PP-0650	$3.25	$2.90	$2.60
CRIMP				
RG59	PP-0688	$3.25	$2.90	$2.60
RG6	PP-0689	$4.95	$4.45	$3.90
SOLDERLESS				
	PP-0652	$4.95	$4.45	$3.90

Crimpless BNC Plug to RG6

No crimper or soldering required.

- Crimpless BNC Plug to RG6

↗		Qty 1+	Qty 10+	Qty 50+
	PP-0675	$3.50	$3.15	$2.75

Male Crimp Plugs

SUITS RG59
With 0.7mm centre pin.
- Suits standard size RG59 cable.
- Nickel plated

PP-0647

SUITS RG59
Suits our Belden coax
- 0.9mm centre pin.
- Nickel plated

PP-0651

SUITS RG58 / RG6
- Nickel plated

Suits RG58 - Cat. PP-0649
Suits RG6 - Cat. PP-0657

PP-0649/57

COMPRESSION PLUG

PP-0669

CRIMP PLUG BOOT
Suits - PP-0695 Mini UHF plug, PS-0660 BNC female line crimp, PP-0649 BNC RG58 Crimp plug & PP-0651 BNC RG59 Crimp plug.

PM-0648

0.7mm CENTRE PIN		Qty 1+	Qty 10+	Qty 50+
	PP-0647	$2.95	$2.60	$2.30
0.9mm CENTRE PIN				
	PP-0651	$2.95	$2.60	$2.30
CRIMP TYPE				
RG58	PP-0649	$2.95	$2.60	$2.30
RG6	PP-0657	$3.95	$3.45	$3.15
COMPRESSION CRIMP				
	PP-0669	$3.95	$3.45	$3.15
CRIMP BOOT				
	PM-0648	$1.95	$1.75	$1.55

Male Twist On Plugs

MALE TWIST ON PLUG FOR RG59
Suits our Belden coax
- 0.9mm centre.
- Nickel plated

PP-0678

MALE TWIST ON PLUG FOR RG6
Suit RG6 cable.
- Nickel plated

PP-0679

TERMINATOR PLUG
To terminate BNC sockets with a 50Ω resistor.
- Nickel plated

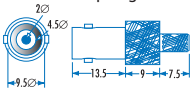
PP-0655

TWIST ON FOR RG59		Qty 1+	Qty 10+	Qty 50+
	PP-0678	$3.95	$3.45	$3.15
TWIST ON FOR RG6				
	PP-0679	$4.95	$4.45	$3.90
TERMINATOR				
	PP-0655	$4.95	$4.45	$3.90

Line Sockets

CRIMP TYPE

Includes crimp ring

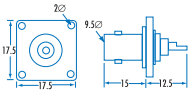


BNC JOINER

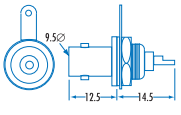
LINE SOCKET		Qty 1+	Qty 10+	Qty 50+
RG58	PS-0660	$4.95	$4.45	$3.90
RG6	PS-0659	$4.95	$4.45	$3.90
JOINER				
	PS-0663	$3.95	$3.45	$3.15

Chassis Sockets

SQUARE MOUNT
- Nickel plated

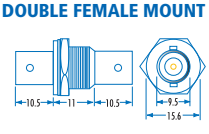


SINGLE HOLE MOUNT



Hole cutout 9.5mm.

DOUBLE FEMALE MOUNT



SQUARE MOUNT		Qty 1+	Qty 10+	Qty 50+
	PS-0656	$2.95	$2.60	$2.30
SINGLE HOLE MOUNT				
	PS-0658	$3.95	$3.45	$3.15
DOUBLE FEMALE MOUNT				
	PS-0662	$4.45	$3.95	$3.45

BNC PCB
- PCB connect with optional panel screw fixing

		Qty 1+	Qty 10+	Qty 50+
	PS-0661	$7.95	$6.95	$6.25

BNC Plug with Screw Terminal

BNC Plug with Screw Terminal

↗	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-3715	$4.95	$4.45	$4.00

BNC Adaptors

BNC PLUG TO F59 PLUG ADAPTOR

PA-3665

BNC ADAPTORS
1 Male to 2 Female.

PA-3662

PA-3664

BNC T ADAPTOR
1 Female to 2 Female.
Triple BNC female

PA-3660

BNC MALE TO DOUBLE BINDING POSTS/ BANANA SOCKETS
Pin separation is standard 19mm.
Suits DMMs, CROs, etc.

PA-3666

BNC PLUG TO BNC PLUG ADAPTOR

PA-3661

BNC PLUG TO F-81 SOCKET

PA-3651

BNC PLUG TO RCA SOCKET

PA-3654

PL259 PLUG TO BNC SOCKET

PA-3652

PL259 SOCKET TO BNC PLUG

NEW 2013

PA-0681

BNC PLUG TO BLUE BNC SOCKET RIGHT ANGLE

PA-3663

BNC TO F-59		Qty 1+	Qty 10+	Qty 50+
	PA-3665	$4.95	$4.45	$3.90
1 MALE TO 2 FEMALE				
T Type	PA-3662	$5.95	$5.25	$4.75
1 MALE TO 2 FEMALE				
Y Type	PA-3664	$9.95	$8.75	$7.75
1 FEMALE TO 2 FEMALE				
	PA-3660	$4.95	$4.45	$3.90
BNC TO BANANA				
	PA-3666	$8.95	$7.95	$6.95
BNC TO BNC				
	PA-3661	$4.95	$4.45	$3.90
BNC PLUG TO F81 SKT				
	PA-3651	$1.95	$1.75	$1.55
BNC PLUG TO RCA SKT				
	PA-3654	$3.95	$3.45	$3.15
PL259 TO BNC SKT				
	PA-3652	$6.95	$6.25	$5.50
PL259 TO BNC PLUG				
NEW	PA-0681	$3.95	$3.45	$3.15
BNC PLUG SKT - R/A				
	PA-3663	$4.95	$4.45	$3.90

N TYPE

LINE PLUG
Suits RG58U cable.
- Compression cord clamp
- Nickel plated

LINE SOCKET
Suits RG58U
- Nickel plated

PANEL SOCKET
- Nickel plated

LINE PLUG		Qty 1+	Qty 10+	Qty 50+
	PP-0672	$5.95	$5.25	$4.75
LINE SOCKET				
	PS-0673	$6.95	$6.25	$5.50
PANEL SOCKET				
	PS-0674	$6.95	$6.25	$5.50

UHF CONNECTORS

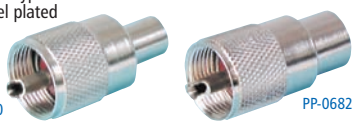
UHF - Mini

MALE LINE PLUG
- Suits RG58U cable
- Crimp
- Nickel plated

		Qty 1+	Qty 10+	Qty 50+
RG58U	PP-0695	$4.95	$4.45	$3.90
RG59	PP-0694	$4.95	$4.45	$3.90

UHF

LINE PLUGS – PL259 TYPE
- Solder type
- Nickel plated

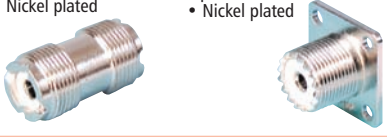


PP-0680 PP-0682

RG-58U CABLE + REDUCER		Qty 1+	Qty 10+	Qty 50+
	PP-0680	$2.95	$2.60	$2.30
RG-8U CABLE				
	PP-0682	$2.95	$2.60	$2.30

UHF JOINER
Double Female Joiner
- Nickel plated

CHASSIS SOCKET
Panel Socket SO239 Square Mount
- Nickel plated



JOINER		Qty 1+	Qty 10+	Qty 50+
	PS-0690	$3.95	$3.45	$3.15
CHASSIS SOCKET				
	PS-0686	$2.95	$2.60	$2.30

DEAN STYLE

Deans Style 60A 2 Pole Gold Plated Connector Set

These are the industry standard in high performance connectors. Rated number one by RC Car Action, the world's leading RC car racing magazine. These connectors offer considerably less resistance than their competitors and are rated at 60 amps.

- Supplied as a pair.

	Qty 1+	Qty 10+	Qty 50+
PT-4450	$3.95	$3.45	$3.15

SMA CONNECTORS

SMA PLUG
Suits RG58U cable.
- Crimp style
- Gold plated

SMA PLUG RIGHT ANGLE
Suits RG174 cable.
- Crimp type
- Gold plated

LINE PLUG		Qty 1+	Qty 10+	Qty 50+
	PP-0632	$5.65	$4.95	$4.45
RIGHT ANGLE				
	PP-0631	$5.95	$5.25	$4.75

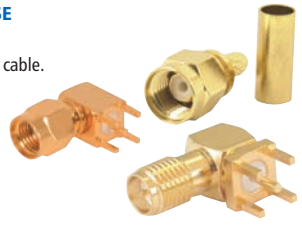
SMA LINE SOCKET
Suits RG174U cable.
- Solder
- Gold plated

	Qty 1+	Qty 10+	Qty 50+
PS-0634	$4.95	$4.45	$3.90

SMA REVERSE

LINE PLUG
Suits RG174U cable.
- Gold plated

PCB
- Right angle
- Solder
- Gold plated



REVERSE LINE		Qty 1+	Qty 10+	Qty 50+
Plug	PP-0590	$5.95	$5.25	$4.75
Socket	PS-0592	$5.95	$5.25	$4.75
REVERSE PCB				
Plug	PP-0594	$9.95	$8.75	$7.75
Socket	PS-0596	$9.95	$8.75	$7.75

SMA Adaptors

SMA SOCKET TO MMCX PLUG PA-0625

SMA SOCKET TO MMCX SOCKET PA-0626

	Qty 1+	Qty 10+	Qty 50+
PA-0625	$6.95	$6.25	$5.50
PA-0626	$6.95	$6.25	$5.50

SMA SOCKET TO REVERSE SMA PLUG PA-0627

SMA SOCKET TO REVERSE SMA SOCKET PA-0629

	Qty 1+	Qty 10+	Qty 50+
PA-0627	$6.95	$6.25	$5.50
PA-0629	$6.95	$6.25	$5.50

SMA Factory Precrimped Coaxial Leads

- SMA plug to plug - Gold plated connectors
- RG316 high quality coax cable
- Bandwidth up to 2.9GHz

		Qty 1+	Qty 4+	Qty 10+
1m	WC-7800	$17.95	$15.95	$14.35
3m	WC-7802	$29.95	$26.90	$23.70
5m	WC-7804	$39.95	$35.90	$31.90

FME SOCKET TO SMA SOCKET NEW 2013 PA-0620

SMA SOCKET TO FME PLUG PA-0621

SMA PLUG TO SMA PLUG NEW 2013 PA-0622

SMA SOCKET TO BNC SOCKET PA-0624

SMA PLUG TO BNC SOCKET PA-0615

	Cat.	Qty 1+	Qty 10+	Qty 50+
NEW	PA-0620	$4.95	$4.45	$3.90
	PA-0621	$4.95	$4.45	$3.90
NEW	PA-0622	$4.95	$4.45	$3.90
	PA-0624	$4.95	$4.45	$3.90
	PA-0615	$5.95	$5.25	$4.75

N TO SMA SOCKET
N plug to SMA socket - PA-0616

PA-0616

N socket to SMA socket - PA-0617

PA-0617

SMA COUPLER
- Gold plated

PA-0635

	Qty 1+	Qty 10+	Qty 50+
PA-0616	$6.95	$6.25	$5.50
PA-0617	$6.95	$6.25	$5.50
PA-0635	$6.95	$6.25	$5.50

FME CONNECTORS

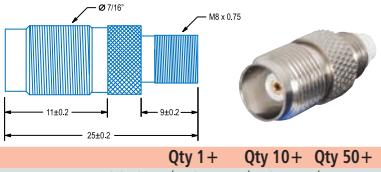
FME LINE
As used on some mobile phone car kits.

RELATED PRODUCT...
See pages 45 for crimp tools

- Crimp
- Nickel plated
- Gold centre pin

		Qty 1+	Qty 10+	Qty 50+
MALE	PP-0710	$4.95	$4.45	$3.90
FEMALE	PS-0712	$3.95	$3.45	$3.15

FME - TNC FEMALE ADAPTOR
FME - TNC adapter, female - female



	Qty 1+	Qty 10+	Qty 50+
PA-0619	$5.95	$5.25	$4.75

TNC CONNECTORS

LINE PLUGS

Solder connections.
- Nickel plated

- Crimp style
- Nickel plated

SOLDER TYPE		Qty 1+	Qty 10+	Qty 50+
	PP-0664	$3.95	$3.45	$3.15
CRIMP TYPE				
RG58U	PP-0665	$3.95	$3.45	$3.15
RG59U	PP-0667	$3.95	$3.45	$3.15

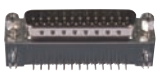
D CONNECTORS

D Male / Female

MALE SOLDER
All 'D' connectors have quality gold plated contacts & nickel plated shells.
9 PIN SHOWN

FEMALE SOLDER
9 PIN SHOWN

RIGHT ANGLE MALE SOLDER



RIGHT ANGLE FEMALE SOLDER

RIGHT ANGLE MALE TO FEMALE ADAPTORS

MALE SOLDER		Qty 1+	Qty 10+	Qty 50+
9 Pin	PP-0800	$1.45	$1.30	$1.15
15 Pin	PP-0820	$1.95	$1.75	$1.55
15HD Pin	PP-0831	$3.65	$3.15	$2.90
25 Pin	PP-0840	$1.95	$1.75	$1.55
37 Pin	PP-0860	$4.95	$4.45	$3.90
FEMALE SOLDER				
9 Pin	PS-0804	$1.95	$1.75	$1.55
15 Pin	PS-0824	$1.95	$1.75	$1.55
15 HD Pin	PS-0832	$3.65	$3.15	$2.90
25 Pin	PS-0844	$1.95	$1.75	$1.55
37 Pin	PS-0864	$4.95	$4.45	$3.90
R/A MALE SOLDER				
9 Pin	PP-0803	$2.95	$2.60	$2.30
25 Pin	PP-0843	$3.65	$3.15	$2.90
R/A FEMALE SOLDER				
9 Pin	PS-0806	$2.95	$2.60	$2.30
R/A FEMALE SOLDER				
25 Pin	PS-0845	$3.65	$3.15	$2.90
RIGHT ANGLE ADAPTORS				
9 pin	PA-0908	$5.95	$5.25	$4.75

Panel Mount Sockets - Push-in Terminal Block

NEW 2013

Range of panel connectors with mainly screwless, push in wire terminals. These products are ideal for prototyping, home cinema, computer or other applications where circuit changes need to be quickly made without cumbersome soldering, or where hand soldering direct to the connectors is almost impossible!

- 8 models to choose from:

PS-0816 PS-0810 PS-0811

Type		Qty 1+	Qty 10+	Qty 50+
DB9	PS-0810	$9.95	$8.75	$7.75
DB15	PS-0811	$11.95	$10.70	$9.50
DB25	PS-0812	$14.95	$13.35	$11.70
DB15HD	PS-0813	$11.95	$10.70	$9.50
DVI	PS-0814	$16.95	$14.95	$13.35
DisplayPort	PS-0815	$14.95	$13.35	$11.70
USB 3.0	PS-0816	$9.95	$8.75	$7.75
HDMI	PS-0817	$12.95	$11.35	$10.35

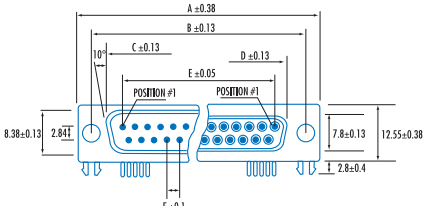
D-SUB IP67 HARSH ENVIRONMENT

Robust D-Sub connectors housed in industrial body and IP67 waterproof housing

- Current rating 5A,
- -40° to +105°C
- Gold flash plating on contacts

LTW®

MALE SOLDER		Qty 1+	Qty 10+	Qty 50+
9 Pin	PP-1216	$17.95	$15.95	$14.35
25 Pin	PP-1226	$19.95	$17.70	$15.70
FEMALE SOLDER				
9 Pin	PS-1210	$17.95	$15.95	$14.35
25 Pin	PS-1220	$19.95	$17.70	$15.70



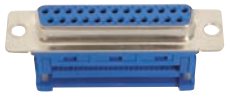
Size	A	B	C	D	E	F
9 Pin	30.81	24.99	16.92	16.24	11.09	2.74
25 Pin	53.04	47.04	38.96	38.38	33.24	2.77

Sizes shown in mm

D - IDC

IDC MALE

IDC FEMALE



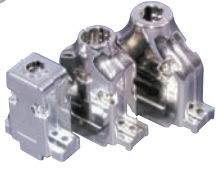
IDC MALE		Qty 1+	Qty 10+	Qty 50+
9 pin	PP-0802	$3.95	$3.45	$3.15
15 pin	PP-0821	$4.45	$3.95	$3.45
25 pin	PP-0842	$4.65	$4.15	$3.60
IDC FEMALE				
9 pin	PS-0805	$3.95	$3.45	$3.15
15 pin	PS-0825	$4.45	$3.95	$3.45
25 pin	PS-0846	$4.65	$4.15	$3.60

D Backshells

PLASTIC
Screws supplied.

METAL
Quality heavy duty metal backshells.

- Ideal where RF screening is required.
- Rear entry.



ABS FLAMEPROOF D BACKSHELLS
Top quality grey back shells with two cable entries.

- Rear or side entry.
- Simply push out the tab required.
- Supplied with 2 long finger screws, cable clamp screws and hood fixing screws.
- A quality range of backshells.

DB25/DB25 HOOD
Ideal for making you own special adaptors.

- Accepts 2 x D25 connectors.
- Either plugs or sockets.

PLASTIC D BACKSHELLS		Qty 1+	Qty 10+	Qty 50+
9 pin	PM-0808	$2.25	$1.95	$1.80
15 pin	PM-0828	$2.45	$2.15	$1.95
25 pin	PM-0848	$2.95	$2.60	$2.30
37 pin	PM-0868	$3.95	$3.45	$3.15
METAL D BACKSHELLS				
9 pin	PM-0812	$3.95	$3.45	$3.15
15 pin	PM-0833	$4.95	$4.45	$3.90
25 pin	PM-0847	$6.95	$6.25	$5.50
ABS D BACKSHELLS				
9 pin	PM-0810	$2.95	$2.60	$2.30
15 pin	PM-0830	$3.25	$2.90	$2.60
25 pin	PM-0850	$3.95	$3.45	$3.15
DB25/DB25 HOOD				
25 pin	PM-0851	$3.95	$3.45	$3.15

D Hardware

SUB HEX NUT EXTENDERS
Pkt of 8 pairs (16 pcs) 6mm hex nut extenders for D connectors.

- Double female screw adaptor.
- Pack of 8 pairs

THUMB SCREWS FOR D BACKSHELLS
Pkt of 4 pairs (8 pcs) of universal thumb screws for D backshells.

- Total length 44mm.
- Pack of 4 pairs

JACK SCREW TO SUIT D-SUB
- 13mm length

LOCKING NUTS FOR D CONNECTORS
Packets of 5 pairs (10 pcs.) of D locking nuts.

- Includes screws, nuts and washers.
- 6mm length.
- Pack of 5 pairs

HEX NUT EXTENDERS		Qty 1+	Qty 10+	Qty 50+
Pkt 8	PM-0857	$4.95	$4.45	$3.90
THUMB SCREWS				
Pkt 4	PM-0859	$4.95	$4.45	$3.90
JACK SCREW				
	PM-0854	$0.75	$0.65	$0.60
JACK SCREW LOCKING				
Pkt 5	PM-0852	$4.95	$4.45	$3.90

Locking Nut Set for D-Connectors

Suits D connectors.

- Length 13mm.

HEX NUT EXTENDERS		Qty 1+	Qty 10+	Qty 50+
	PM-0855	$2.95	$2.60	$2.30

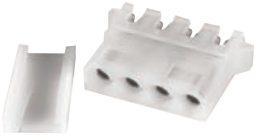
Disk Drive - 4 Pin Connectors

DISK DRIVE POWER CONNECTOR - PLUG
Plug for wiring power to any standard drive. Has crimp pins.

DISK DRIVE PCB POWER PLUG
Power plug for PC drives.

DISK DRIVE POWER SOCKET
Socket for wiring power cables for use on any standard drive. Has crimp pins.

DISK DRIVE IDC POWER SOCKET
- Insulation displacement type



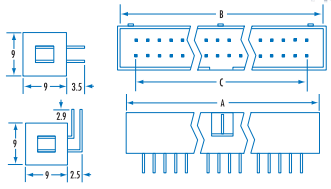
POWER PLUG		Qty 1+	Qty 10+	Qty 50+
	PP-0743	$1.95	$1.75	$1.55
PCB POWER PLUG				
	PP-0744	$1.45	$1.30	$1.15
POWER SOCKET				
	PS-0742	$2.95	$2.60	$2.30
IDC POWER SOCKET				
	PS-0740	$3.95	$3.45	$3.15

IDC CONNECTORS

IDC Headers

All headers have gold plated pins.

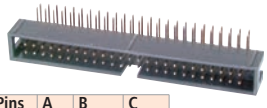
VERTICAL



Dimensions (mm)	Pins	A	B	C
Cat. PP-1100	10	20	18	10
Cat. PP-1106	16	28	26	18
Cat. PP-1110	26	41	38.5	30.5
Cat. PP-1112	34	51	49.5	41
Cat. PP-1114	40	58.5	56	48
Cat. PP-1116	50	71	69	61

Pins		Qty 1+	Qty 4+	Qty 10+
10	PP-1100	$0.95	$0.85	$0.75
16	PP-1106	$1.25	$1.10	$0.97
26	PP-1110	$1.65	$1.45	$1.30
34	PP-1112	$1.95	$1.75	$1.55
40	PP-1114	$2.25	$1.95	$1.80
50	PP-1116	$2.75	$2.45	$2.15

RIGHT ANGLE



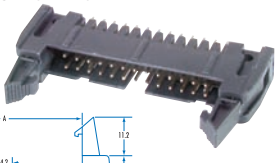
Dimensions (mm)	Pins	A	B	C
Cat. PP-1118	10	20	18	10
Cat. PP-1122	16	28	26	18
Cat. PP-1126	26	41	38.5	30.5
Cat. PP-1128	34	51	49.5	41
Cat. PP-1132	50	71	69	61

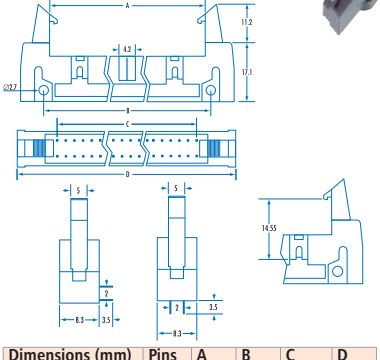
Pins		Qty 1+	Qty 4+	Qty 10+
10	PP-1118	$1.25	$1.10	$0.97
16	PP-1122	$1.45	$1.30	$1.15
26	PP-1126	$1.75	$1.55	$1.40
34	PP-1128	$2.25	$1.95	$1.80
50	PP-1132	$2.95	$2.60	$2.30

IDC Locking Headers

All headers have gold plated pins.

VERTICAL





Dimensions (mm)	Pins	A	B	C	D
Cat. PP-1134	10	32	10	22	18
Cat. PP-1138	16	39.5	18	29.5	25.5
Cat. PP-1140	20	45	23	34.5	31
Cat. PP-1142	26	52	30.5	42	38
Cat. PP-1144	34	62	41	52	48.5
Cat. PP-1148	50	83	61	73	69

Pins		Qty 1+	Qty 4+	Qty 10+
10	PP-1134	$1.25	$1.10	$0.97
16	PP-1138	$1.65	$1.45	$1.30
20	PP-1140	$1.95	$1.75	$1.55
26	PP-1142	$2.25	$1.95	$1.80
34	PP-1144	$2.75	$2.45	$2.15
50	PP-1148	$3.75	$3.30	$2.95

IDC Locking Headers (continued)

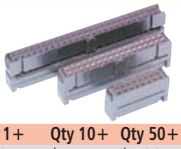
RIGHT ANGLE

Dimensions (mm)	Pins	A	B	C	D
Cat. PP-1150	10	32	10	22	18
Cat. PP-1154	16	39.5	18	29.5	25.5
Cat. PP-1158	26	52	30.5	42	38
Cat. PP-1160	34	62	41	52	48.5
Cat. PP-1164	50	83	61	73	69

Pins		Qty 1+	Qty 4+	Qty 10+
10	PP-1150	$1.45	$1.30	$1.15
16	PP-1154	$1.75	$1.55	$1.40
26	PP-1158	$2.25	$1.95	$1.80
34	PP-1160	$2.95	$2.60	$2.30
50	PP-1164	$3.95	$3.45	$3.15

IDC LINE SOCKETS

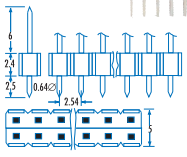
- Insulation displacement connection
- Suits standard pitch ribbon cable



Pins		Qty 1+	Qty 10+	Qty 50+
10	PS-0984	$1.65	$1.45	$1.30
16	PS-0985	$1.85	$1.65	$1.45
20	PS-0986	$1.95	$1.75	$1.55
26	PS-0987	$2.25	$1.95	$1.80
34	PS-0988	$2.65	$2.30	$2.07
40	PS-0989	$2.95	$2.60	$2.30
50	PS-0990	$3.45	$3.05	$2.75

DUAL IN-LINE JUMPERS

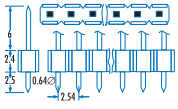
- 40 way (2 x 20)
- Snap apart.

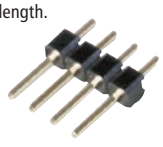


Pins		Qty 1+	Qty 4+	Qty 10+
40	HM-3250	$1.75	$1.55	$1.40

HEADER TERMINAL STRIPS 28 & 40 PIN

VERTICAL LAUNCHER - 0.1" / 2.54mm Pitch
For PCBs and PCB mass terminals.
Snap apart if you need a small length.





Pins		Qty 1+	Qty 4+	Qty 10+
28	HM-3211	$0.85	$0.75	$0.65
40	HM-3212	$0.95	$0.85	$0.75

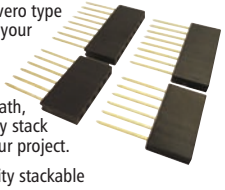
JUMPER SHUNTS

2.54mm spacing. Pkt 10

Pkt		Qty 1+	Qty 4+	Qty 10+
10	HM-3240	$1.85	$1.65	$1.45

Stackable Header Set for Arduino

The perfect accessory to the ProtoShield Basic, Pro, and vero type boards when connecting to your Arduino compatible project. Stackable headers have female sockets on the top side and male pins underneath, allowing you to conveniently stack boards and shields up in your project.



- Gold flash 0.1" pitch quality stackable headers
- 2 x 8 pin and 2 x 6 pin included to suit the Eleven, EtherTen, USBDroid and ProtoShields

		Qty 1+	Qty 4+	Qty 10+
	HM-3207	$2.95	$2.60	$2.30

USB CONNECTORS

TYPE A & TYPE B PLUGS

With solder lugs.

PP-0790

PP-0792

Type		Qty 1+	Qty 10+	Qty 50+
A	PP-0790	$2.45	$2.15	$1.95
B	PP-0792	$2.45	$2.15	$1.95

TYPE A & TYPE B PC MOUNT SOCKETS

4P4C.

PS-0916

PS-0920

Type		Qty 1+	Qty 10+	Qty 50+
A	PS-0916	$2.95	$2.60	$2.30
B	PS-0920	$2.95	$2.60	$2.30

USB 3.0 Adaptors

- USB 3.0 Plug B to Socket A Cat PA-0930
- USB 3.0 Micro B Plug to Socket A Cat PA-0931
- USB 3.0 Socket A to Socket A Cat PA-0932
- USB 3.0 Plug Micro B to Socket B Cat PA-0933

PA-0930

PA-0931

PA-0932

PA-0933

NEW LOWER PRICE

		Qty 1+	Qty 4+	Qty 10+
	PA-0930	$7.95	$6.95	$6.25
	PA-0931	$7.95	$6.95	$6.25
	PA-0932	$7.95	$6.95	$6.25
	PA-0933	$7.95	$6.95	$6.25

TYPE A IP67 RATED PLUG CABLES

LTW

PP-0784

Industrial USB connectors encased in robust housing with IP67 seal.

- Current rating 1.5A
- -40° to +105°C
- PBT UL94V-0 body

PP-0784 A-Type Male 1m Cable
PS-0786 A-Type Female 1m Cable
PP-0788 Waterproof Cap

PS-0786

NEW LOWER PRICE

Type		Qty 1+	Qty 10+	Qty 50+
A Male Lead	PP-0784	$12.95	$11.35	$10.35
A Female Lead	PS-0786	$12.95	$11.35	$10.35
Cap	PP-0788	$8.95	$7.95	$6.95

TYPE B PANEL MOUNT USB SOCKETS

Panel-mounting Type B USB socket.

- Suits panels up to 10mm thick.
- Mounting hole 20mm

PS-0782 A Type Female
PS-0783 B Type Female

		Qty 1+	Qty 10+	Qty 50+
A Female	PS-0782	$19.95	$17.70	$15.70
B Female	PS-0783	$19.95	$17.70	$15.70

TYPE B IP67 RATED PLUG CABLES

Popular USB Type B connector.

- IP67 rated for harsh environments
- 1 metre cable extension.

Plug or socket version available:

- PP-0785: IP67 Rated Type B USB Plug Cable
- PS-0781: IP67 Rated Type B USB Socket Cable

PS-0781

PP-0785

		Qty 1+	Qty 10+	Qty 50+
	PP-0785	$16.95	$14.95	$13.35
	PS-0781	$18.95	$16.95	$14.95

RJ45 MODULAR

Modular Plugs

50µ" Gold Contact

8/8 - RJ45
- Not ACMA Approved

Pkt		Qty 1+	Qty 5+	Qty 20+
10	PP-1436	$7.95	$6.95	$6.25

SCREENED 8 PIN FOR STRANDED CABLE

8P8C with full screening and round cable entry for connection to STP cable.

ACMA Approved

Pkt		Qty 1+	Qty 5+	Qty 20+
10	PP-1437	$14.95	$13.35	$11.70

RJ45 MODULAR PLUGS FOR STRANDED/SOLID CAT 6 CABLE PK10

RJ45 Modular Plugs for Stranded and Solid Cat 6 Cable. Pack of 10

ACMA Approved

RJ45 STRANDED		Qty 1+	Qty 5+	Qty 20+
Pkt 10	PP-1447	$13.95	$12.35	$10.95

8 PIN FOR FLAT STRANDED CABLE

8/8 - RJ45

ACMA Approved

8 PIN FOR ROUND SOLID CORE CABLE

8/8 RJ45
Suits Cat5e

ACMA Approved

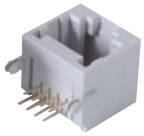
RJ45 STRANDED		Qty 1+	Qty 5+	Qty 20+
Pkt 5	PP-1434	$5.95	$5.25	$4.75
RJ45 STRANDED				
Pkt 50	PP-1435	$29.95	$26.90	$23.70
RJ45 SOLID				
Pkt 6	PP-1438	$6.95	$6.25	$5.50
RJ45 SOLID				
Pkt 50	PP-1439	$34.95	$31.45	$27.90

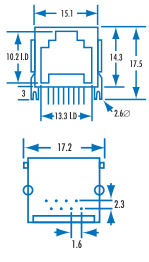
RJ45 BOOTS

A packet of boots to suit RJ45 8/8 plugs.

Pkt		Qty 1+	Qty 5+	Qty 20+
10	PM-1441	$4.95	$4.45	$4.15
50 Blue	PM-1442	$15.50	$13.70	$12.95

8 PIN PCB MODULAR SOCKET
- Side entry
- Not ACMA approved





Type		Qty 1+	Qty 10+	Qty 50+
8/8 - RJ45	PS-1478	$2.45	$2.15	$1.95

RJ45 CONNECTORS IP67 RATED

LTW

This set of connectors makes it safe to use RJ45 connectors in harsh environments. Rated to IP67 they are dust tight and water tight making them handy for control and communications applications outdoors or industry workshops.

PS-1450 PP-1452 PP-1454

Type		Qty 1+	Qty 10+	Qty 50+
Socket	PS-1450	$27.95	$24.95	$22.35
Plug	PP-1452	$14.95	$13.35	$11.70
Cap	PP-1454	$8.95	$7.95	$6.95

RJ11/12 MODULAR

50µ" Gold Contact

4 PIN FOR STRANDED CABLE

4/4 - RJ11

ACMA Approved

6 PIN FOR STRANDED CABLE

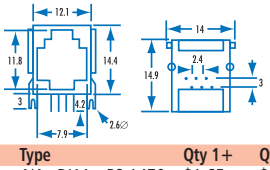
6/6 - RJ12

ACMA Approved

RJ11		Qty 1+	Qty 5+	Qty 20+
Pkt 5	PP-1430	$2.45	$2.15	$1.95
RJ11				
Pkt 50	PP-1431	$19.95	$17.70	$15.70
RJ12				
Pkt 5	PP-1432	$2.95	$2.60	$2.30
RJ12				
Pkt 50	PP-1433	$23.95	$21.35	$18.95

PCB MODULAR SOCKETS

Side entry.
Not ACMA Approved



Type		Qty 1+	Qty 10+	Qty 50+
4/4 - RJ11	PS-1470	$1.65	$1.45	$1.30
6/6 - RJ12	PS-1474	$1.95	$1.75	$1.55

TELEPHONE

For other telephone leads, adaptors - see our Computer & Multimedia section 426
- Blister pack. • ACMA Approved

PLUG 610 TYPE WALL SKT

PLUG 610 TYPE LINE SKT

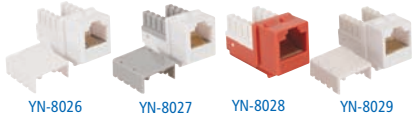
PS-1410 PS-1412

		Qty 1+	Qty 5+	Qty 20+
PS-1410		$6.95	$6.25	$5.50
PS-1412		$6.95	$6.25	$5.50

WALLPLATES & KEYSTONE SKTS

Inserts for Keystone Wallplates

RELATED PRODUCT...
See page 426 & next column for wallplates to suit



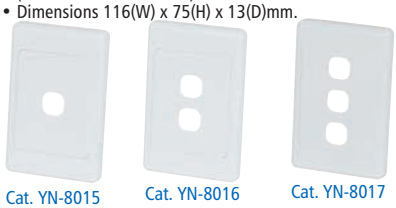
YN-8026 YN-8027 YN-8028 YN-8029

		Qty 1+	Qty 5+	Qty 10+
RJ11	YN-8026	$4.95	$4.45	$3.90
RJ12	YN-8027	$4.95	$4.45	$3.90
RJ45 Cat5e	YN-8028	$4.95	$4.45	$3.90
RJ45 Cat6	YN-8029	$4.95	$4.45	$3.90

Australian / NZ Flush Plates

Our premium Australian / NZ flush plates not only accept our Cat 5e jacks shown below, they are also compatible with many other standard Australian mechanisms and jacks. The 2 piece design has a separate back plate and cover which is easily removed for painting.

- Fits standard Australian/NZ electrical switch plate installation hardware and screw centres.
- Perfect for easy flush installation on Gyprock walls.
- Supplied unloaded without jacks (see cat. YN-8036 below).
- Dimensions 116(W) x 75(H) x 13(D)mm.



Cat. YN-8015 Cat. YN-8016 Cat. YN-8017

		Qty 1+	Qty 4+	Qty 10+
Single	YN-8015	$5.95	$5.25	$4.75
Double	YN-8016	$5.95	$5.25	$4.75
Triple	YN-8017	$5.95	$5.25	$4.75

RJ12 IDC Socket for Flush Plates

Voice grade RJ12 6P4C IDC jack with 2 IDC connections per contact allowing easy loop-in, loop-out for typical voice applications. Compatible with most standard Australian flush plates. Rear termination with IDC impact tool.

	Qty 1+	Qty 5+	Qty 20+
YN-8035	$12.95	$11.35	$10.35

Cat 5e IDC Jack to Suit Australian / NZ Style Flush Plates

Our premium Cat 5e IDC data jack is designed to suit our wallplates shown above. They also suit many other brands of Australian/NZ flush plates.

- Rear terminated with 110 or Krone impact tool.
- T568A & T568B colour coding for easy installation.
- ACMA Approved.
- Suit YN-8015/16/17 shown above.

ACMA Approved

↗		Qty 1+	Qty 4+	Qty 10+
	YN-8036	$12.95	$11.35	$10.35

Keystone Surface Box

Side entry surface mount boxes to accept our standard keystone 110 jacks.

- Snap-on cover for easy installation & access to wiring.
- Single and duplex versions available.
- Double sided tape for easy installation.
- Supplied unloaded without keystone jacks.
- Colour is white.

ACMA Approved

↗ WxHxD(mm)		Qty 1+	Qty 4+	Qty 10+
Single 30x60x26	YN-8022	$5.95	$5.25	$4.75
Double 55x60x26	YN-8024	$5.95	$5.25	$4.75

110 Keystone Jack

Suitable for use with our keystone wall plates and keystone surface boxes.

- For termination with ISBY impact tool and has combined 568A and T568B colour coding for easy installation.
- White in colour.

ACMA Approved

↗		Qty 1+	Qty 4+	Qty 10+
	YN-8030	$12.95	$11.35	$10.35

DC POWER

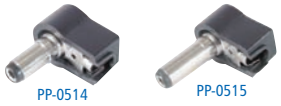
LINE - FEMALE

PLASTIC BODY

PP-0503 PP-0504 PP-0506 PP-0508

PP-0507 PP-0505 PP-0510

PP-0511 PP-0513 PP-0509 PP-0512



PP-0514 PP-0515

9.5mm SHAFT LENGTH 0.7(ID) x 2.5(OD)mm		Qty 1+	Qty 10+	Qty 50+
	PP-0503	$1.95	$1.75	$1.55
1.0(ID) x 3.8(OD)mm				
	PP-0504	$1.95	$1.75	$1.55
1.3(ID) x 3.5(OD)mm				
	PP-0506	$1.95	$1.75	$1.55
1.6(ID) x 5.2(OD)mm				
	PP-0508	$1.95	$1.75	$1.55
1.7(ID) x 4.0(OD)mm				
	PP-0507	$1.95	$1.75	$1.55
1.7(ID) x 4.75(OD)mm				
	PP-0505	$1.95	$1.75	$1.55
2.1(ID) x 5.5(OD)mm				
	PP-0510	$1.95	$1.75	$1.55
10mm SHAFT LENGTH 2.5(ID) x 5.5(OD)mm				
	PP-0511	$1.95	$1.75	$1.55
3.1(ID) x 6.3(OD)mm				
	PP-0513	$1.95	$1.75	$1.55
14mm SHAFT LENGTH 2.1(ID) x 5.5(OD)mm				
	PP-0509	$1.95	$1.75	$1.55
2.5(ID) x 5.5(OD)mm				
	PP-0512	$1.95	$1.75	$1.55
RIGHT ANGLE - 9.5mm SHAFT LENGTH 2.1(ID) x 5.5(OD)mm				
	PP-0514	$2.65	$2.30	$2.07
RIGHT ANGLE - 14mm SHAFT LENGTH 2.1(ID) x 5.5(OD)mm				
	PP-0515	$2.65	$2.30	$2.07

METAL BODY LINE - FEMALE

9.5mm shaft.

PP-0531 PP-0532

2.1(ID) x 5.5(OD)mm		Qty 1+	Qty 10+	Qty 50+
	PP-0531	$3.75	$3.30	$2.95
2.5(ID) x 5.5(OD)mm				
	PP-0532	$3.75	$3.30	$2.95

Line Sockets

LINE - MALE

Plastic body

PP-0526 PP-0528 PS-0540

2.1mm		Qty 1+	Qty 10+	Qty 50+
	PS-0526	$3.45	$3.05	$2.75
2.5mm				
	PS-0528	$3.45	$3.05	$2.75
1.0mm - SUITS NOKIA				
	PS-0540	$2.45	$2.15	$1.95

METAL BODY

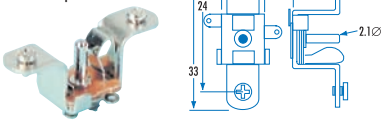
PP-0534 PP-0536

2.1mm		Qty 1+	Qty 10+	Qty 50+
	PS-0534	$3.95	$3.45	$3.15
2.5mm				
	PS-0536	$3.95	$3.45	$3.15

Chassis Mount

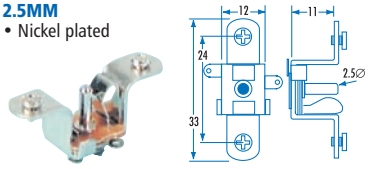
2.1MM

- Nickel plated

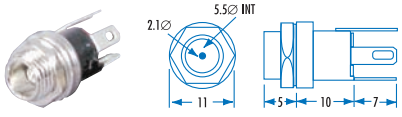


2.5MM

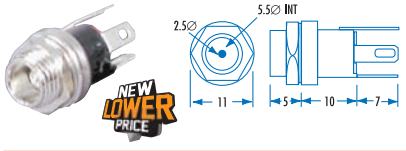
- Nickel plated



2.1MM BULKHEAD MALE



2.5MM BULKHEAD MALE



2.1mm CHASSIS		Qty 1+	Qty 10+	Qty 50+
	PS-0516	$1.95	$1.75	$1.55
2.5mm CHASSIS				
	PS-0518	$1.95	$1.75	$1.55
2.1mm BULKHEAD				
	PS-0522	$2.95	$2.60	$2.30
2.5mm BULKHEAD				
	PS-0524	$2.95	$2.60	$2.30

Surface Mount

2.5MM PC MOUNT MALE

SPST contacts.

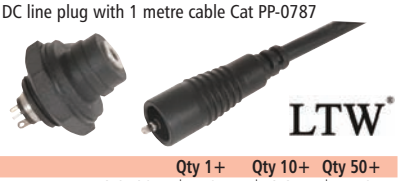
1.6MM SWITCHED DC CHASSIS MALE

Packet of 10

2.5mm		Qty 1+	Qty 10+	Qty 50+
	PS-0520	$1.95	$1.75	$1.55
1.6mm SWITCHED				
Pkt 10	PS-0530	$22.95	$20.35	$18.35

DC Connector & Line Plug - IP67

- 2.5 mm DC connector Cat. PS-0789
- DC line plug with 1 metre cable Cat PP-0787



		Qty 1+	Qty 10+	Qty 50+
	PS-0789	$14.95	$13.35	$11.70
	PP-0787	$12.95	$11.35	$10.35

2.1mm DC Connectors with Screw Terminals

2.1MM DC PLUG WITH SCREW TERMINALS

PA-3711

2.1MM DC SOCKET WITH SCREW TERMINALS

PA-3713

↗		Qty 1+	Qty 10+	Qty 50+
Plug	PA-3711	$4.95	$4.45	$4.00
Socket	PA-3713	$4.95	$4.45	$4.00

DC Power Adaptors

2.1MM DC PLUG TO 2.1MM DC PLUG

2.5MM DC PLUG TO 2.5MM DC PLUG

2.1MM DC SOCKET TO 2.1MM DC SOCKET

2.5MM DC SOCKET TO 2.5MM DC SOCKET

PA-3707
PA-3709

PA-3701
PA-3708

DC PLUG TO 6310 NOKIA® ADAPTOR

PA-3710

The new Nokia® phones have a smaller DC charging plug. This accepts the larger DC plug and converts it to the smaller one, enabling you to have a spare charger at work etc. Gotcha!

2.1mm to 2.1mm Plug	Qty 1+	Qty 10+	Qty 50+
PA-3707	$2.95	$2.60	$2.30
2.5mm to 2.5mm Plug			
PA-3709	$2.95	$2.60	$2.30
2.1mm to 2.1mm Skt			
PA-3701	$3.45	$3.05	$2.75
2.5mm to 2.5mm Skt			
PA-3708	$3.45	$3.05	$2.75
DC Plug to Nokia Skt			
PA-3710	$4.95	$4.45	$3.90

Illuminated Polarity Sensing DC Connectors

Simplifies installation of your CCTV cameras and other security applications. They detect and indicate the polarity of your power connections with integrated LEDs. The LED lights up either blue for centre positive, red for centre negative or purple for AC voltage. They also shine brighter as voltage increases. 5-30 VAC/VDC range, 1 metre lead length.

Plug Cat. WQ-7288 Inline Socket Cat. WQ-7289

	Qty 1+	Qty 2+	Qty 4+
WQ-7288	$4.95	$4.45	$4.15
WQ-7289	$4.95	$4.45	$4.15

DC Power Adaptors

1.3MM DC PLUG TO 2.5MM DC SOCKET

Cat. PA-3700

1.3MM DC PLUG TO 2.1MM DC SOCKET

Cat. PA-3702

2.1MM DC PLUG TO 2.5MM DC SOCKET

Cat. PA-3704

2.5MM DC PLUG TO 2.1MM DC SOCKET

Cat. PA-3706

1.3mm to 2.5mm	Qty 1+	Qty 10+	Qty 50+
PA-3700	$2.95	$2.60	$2.30
1.3mm to 2.1mm			
PA-3702	$2.95	$2.60	$2.30
2.1mm to 2.5mm			
PA-3704	$2.95	$2.60	$2.30
2.5mm to 2.1mm			
PA-3706	$2.95	$2.60	$2.30

RELATED PRODUCT...
Full range of DC cigarette lighter plugs, sockets & leads on page 240

MONTHLY SPECIALS

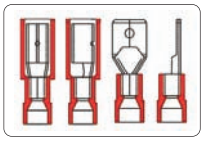
Look out for our monthly promotions in store now!

This colour pricebar denotes a Clearance item - check for specials.

STANDARD QUICK CONNECTORS

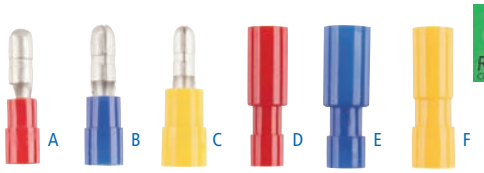
NYLON INJECTION MOULDING

DID YOU KNOW?
Unlike the majority of quick crimp connectors available on the market, our range of standard quick connectors are made with a nylon injection moulded insulation as opposed to the heat shrunk vinyl insulation most others feature. The injection-moulded nylon insulation is temperature rated to 105°C, and features a moulded funnel taper in the insulation for easy cable entry.



BULLETS

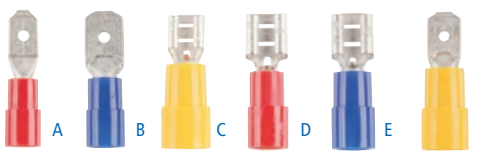
- Red: Cable entry size 4.3mm Wire size 0.75 - 1mm dia
- Blue: Cable entry size 4.5mm Wire size 1.5 - 2.5mm dia.
- Yellow: Cable entry size 6.6mm Wire size 4 - 6mm dia.



ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Male	4	8	PT-4500	$3.50	$3.15	$2.75	50	PT-4501	$9.95	$8.75	$7.75
B	Male	4	8	PT-4600	$3.50	$3.15	$2.75	100	PT-4601	$15.95	$14.35	$12.70
C	Male	4	8	PT-4700	$3.75	$3.30	$2.95	100	PT-4701	$18.95	$16.95	$14.95
D	Female	4	8	PT-4502	$3.50	$3.15	$2.75	50	PT-4503	$9.95	$8.75	$7.75
E	Female	4	8	PT-4602	$3.50	$3.15	$2.75	100	PT-4603	$15.95	$14.35	$12.70
F	Female	4	8	PT-4702	$3.75	$3.30	$2.95	100	PT-4703	$18.95	$16.95	$14.95

SPADES

- Red: Cable entry size 4.3mm Wire size 0.75 - 1mm dia
- Blue: Cable entry size 4.5mm Wire size 1.5 - 2.5mm dia.
- Yellow: Cable entry size 6.6mm Wire size 4 - 6mm dia.

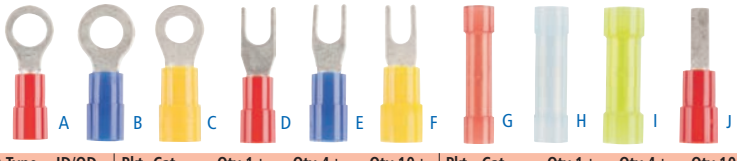


ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Male	4.8	8	PT-4518	$2.75	$2.45	$2.15	100	PT-4519	$13.95	$12.35	$10.95
B	Male	4.5	8	PT-4609	$2.75	$2.45	$2.15	100	PT-4610	$14.95	$13.35	$11.70
C	Female	4.8	8	PT-4722	$3.45	$3.05	$2.75	100	PT-4721	$17.95	$15.95	$14.35
D	Female	4.8	8	PT-4522	$2.75	$2.45	$2.15	100	PT-4524	$13.95	$12.35	$10.95
E	Female	4.8	8	PT-4622	$2.75	$2.45	$2.15	100	PT-4621	$14.95	$13.35	$11.70
F	Male	6.4	8	PT-4709	$3.45	$3.05	$2.75	100	PT-4710	$17.95	$15.95	$14.35

ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Male	6.4	8	PT-4509	$2.75	$2.45	$2.15	100	PT-4512	$13.95	$12.35	$10.95
B	Female	6.4	8	PT-4607	$2.75	$2.45	$2.15	100	PT-4608	$15.95	$14.35	$12.70
C	Female	6.8	8	PT-4707	$2.75	$2.45	$2.15	100	PT-4708	$18.95	$16.95	$14.95
D	Female	6.8	8	PT-4507	$2.75	$2.45	$2.15	100	PT-4513	$13.95	$12.35	$10.95
E	Female	6.4	8	PT-4625	$2.95	$2.60	$2.30	50	PT-4626	$9.95	$8.75	$7.75
F	Female	6.8	8	PT-4725	$3.75	$3.30	$2.95	100	PT-4726	$12.95	$11.35	$10.35
G	Female	6.8	8	PT-4525	$2.75	$2.45	$2.15	50	PT-4526	$9.95	$8.75	$7.75
H	Piggybk	6.4	8	PT-4510	$2.75	$2.45	$2.15	100	PT-4511	$13.95	$12.35	$10.95

EYE, FORK, BUTT & BLADES

- Red: Cable entry size 4.3mm / Wire size 0.75 - 1mm dia
- Blue: Cable entry size 4.5mm / Wire size 1.5 - 2.5mm dia.
- Yellow: Cable entry size 6.6mm / Wire size 4 - 6mm dia.



ID	Type	ID/OD	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Eye	5.3/8.0	8	PT-4514	$2.75	$2.45	$2.15	100	PT-4515	$13.95	$12.35	$10.95
B	Eye	5.3/9.5	8	PT-4614	$2.75	$2.45	$2.15	100	PT-4615	$14.95	$13.35	$11.70
C	Eye	5.3/9.5	8	PT-4714	$3.75	$3.30	$2.95	100	PT-4715	$17.95	$15.95	$14.35
D	Fork	3.7/5.7	8	PT-4523	$2.75	$2.45	$2.15	100	PT-4529	$13.95	$12.35	$10.95
E	Fork	3.7/5.7	8	PT-4623	$2.75	$2.45	$2.15	100	PT-4624	$14.95	$13.35	$11.70
F	Fork	3.7/8.1	8	PT-4723	$3.75	$3.30	$2.95	100	PT-4724	$17.95	$15.95	$14.35
G	Butt	4.7	8	PT-4527	$2.75	$2.45	$2.15	100	PT-4528	$13.95	$12.35	$10.95
H	Butt	5.7	8	PT-4627	$2.75	$2.45	$2.15	100	PT-4628	$14.95	$13.35	$11.70
I	Butt	4 - 6	8	PT-4727	$3.75	$3.30	$2.95	100	PT-4728	$17.95	$15.95	$14.35
J	Blade	8 x 2.8	8	PT-4516	$2.75	$2.45	$2.15	100	PT-4517	$13.95	$12.35	$10.95

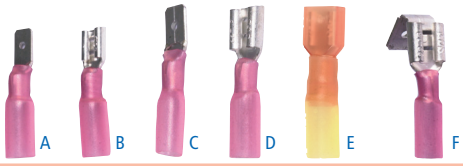
SELF SEALING QUICK CONNECTORS

The unique heat sensitive sealing gel in these quick connectors will automatically flood the crimp joint with sealant as the heatshrink sleeve is heated. The resulting crimp connection is water and corrosion resistant and has good strain relief properties. 11 styles to choose from.

BULLETS

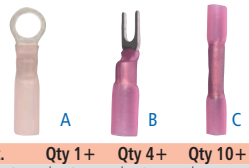
ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Male	4	8	PT-4800	$5.95	$5.25	$4.75
B	Female	4	8	PT-4802	$6.95	$6.25	$5.50

SPADES



ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Male	4.8mm	8	PT-4818	$5.95	$5.25	$4.75
B	Female	4.8mm	8	PT-4822	$5.95	$5.25	$4.75
C	Male	6.4mm	8	PT-4809	$5.95	$5.25	$4.75
D	Female	6.4mm	8	PT-4807	$5.95	$5.25	$4.75
E	Female Ins.	6.4mm	8	PT-4825	$6.95	$6.25	$5.50
F	Piggyback	6.4mm	8	PT-4810	$6.95	$6.25	$5.50

EYE, FORK & BUTT



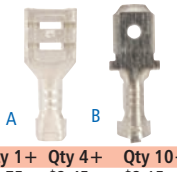
ID	Type	Size	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Eye	5.3 ID	8	PT-4814	$5.95	$5.25	$4.75
B	Fork 3.7ID	5.7OD	8	PT-4823	$5.95	$5.25	$4.75
C	Butt	4.7	8	PT-4827	$6.95	$6.25	$5.50

QUICK SPLICE CONNECTORS

Simply insert your wires and squeeze it closed to connect and crimp. Quick, easy, and secure. Nylon insulation rated to 105˚C

ID	Type	Pk	Cat.	Qty 1+	Qty 4+	Qty 10+
A	22-18AWG	6	PT-4537	$2.75	$2.45	$2.15
B	16-14AWG	6	PT-4637	$2.75	$2.45	$2.15
C	12-10AWG	6	PT-4737	$2.75	$2.45	$2.15

NON-INSULATED SPADE CONNECTORS



ID	Type	Size	Pk	Cat.	Qty 1+	Qty 4+	Qty 10+
A	Socket	6.3mm	10	PT-4630	$2.75	$2.45	$2.15
B	Plug	6.3mm	10	PT-4631	$2.75	$2.45	$2.15

NON-INSULATED EYE TERMINALS

A range of non-insulated eye terminals for a variety of electronic or automotive applications.

MORE INFO WEB

See website for specifications

ID	Size	Cable Entry	Pk	Cat.	Qty 1+	Qty 4+	Qty 10+
A	4mm	2.5mm²	8	PT-4930	$2.75	$2.45	$2.15
B	6mm	4mm²	8	PT-4932	$2.75	$2.45	$2.15
C	6mm	6mm²	8	PT-4934	$2.75	$2.45	$2.15
D	8mm	6mm²	8	PT-4935	$2.75	$2.45	$2.15
E	8mm	10mm²	8	PT-4936	$3.45	$3.05	$2.75
F	8mm	25mm²	4	PT-4937	$3.95	$3.45	$3.15
G	8mm	35mm²	4	PT-4938	$5.95	$5.25	$4.75
H	8mm	50mm²	2	PT-4939	$4.95	$4.45	$3.90

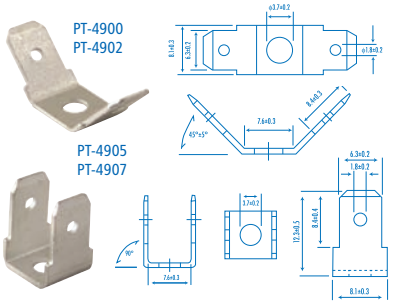
QUICK CONNECTORS/TAGSTRIPS

Chassis Mount Spade Terminals

This range of quick connect terminals have a mounting hole for an M3 screw.

CRAZY CLEARANCE

- Suitable for chassis mounting or mounting onto a PCB for high current applications
- All have 6.4mm spade lugs



Pkt 8

Type / Angle		Qty 1+	Qty 4+	Qty 10+
2 Spade / 45°	PT-4900	$2.50	$2.21	$1.95
2 Spade / 90°	PT-4905	$2.50	$2.21	$1.95

Pkt 100

Type / Angle		Qty 1+	Qty 4+	Qty 10+
2 Spade / 45°	PT-4902	$12.95	$11.35	$10.35
2 Spade / 90°	PT-4907	$12.95	$11.35	$10.35

Tagstrips

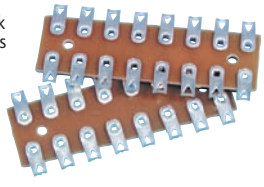
- Tin plated lugs

Type		Qty 1+	Qty 4+	Qty 10+
2 Way	HM-3302	$0.60	$0.52	$0.47
3 Way	HM-3303	$0.70	$0.62	$0.55
4 Way	HM-3304	$0.80	$0.70	$0.62
5 Way	HM-3305	$0.85	$0.75	$0.65
8 Way	HM-3308	$0.95	$0.85	$0.75

Tagboard

2 tagboards per pack with 8 tin plated lugs per side.

- Dimensions: 80(L) x 32(W)mm including lugs.



Pkt		Qty 1+	Qty 4+	Qty 10+
2	HM-3320	$4.85	$4.30	$3.75

Extra Large Eye Terminals 0GA Red Black Pair

Suits thick cable (0GA)

- Hole Size - 8.4mm
- Cable hole diameter - 11.8mm
- 60mm including cover
- Metal thickness - 1.6mm

	Qty 1+	Qty 4+	Qty 10+
PT-4567	$6.95	$6.25	$5.50

Gold Plated Power Terminals

Each has a grub screw for attaching to the power cable.

Run cables to equipment & terminals. All 8mm bolt hole.
Cat HC-4068: 52mm length
Cat HC-4066: 57mm length
Cat HC-4062: 56mm length

Connect 0G cable to 4G screw down connections
Cat HC-4069: 8.6mm shaft / 55mm length

Type		Qty 1+	Qty 4+	Qty 10+
0GA	HC-4062	$8.95	$7.95	$6.95
2GA	HC-4066	$8.95	$7.95	$6.95
4GA	HC-4068	$8.95	$7.95	$6.95
0-4GA	HC-4069	$8.95	$7.95	$6.95

Gold Plated Crimp Connector 12.7mm Eye Red & Black Pair

Suits 2GA cable.

- Eye hole size: 12.7mm
- Cable hole dia.:9.6mm
- 60mm including cover
- Metal thickness 1.5mm

Supplied as a pair - one red, one black.

	Qty 1+	Qty 4+	Qty 10+
PT-4565	$5.95	$5.25	$4.75

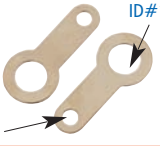
Phone Type Crimp Lugs

Brass Spade width - 3.2mm
- Cable entry 2.5mm

Pkt		Qty 1+	Qty 4+	Qty 10+
15	PT-4520	$2.95	$2.60	$2.30
100	PT-4521	$12.95	$11.35	$10.35

Solder Lugs

Solder lugs for any screw down connection.
- Length: 17.6mm
- ID#1: 4.3mm
- ID#2: 2.0mm



Pkt		Qty 1+	Qty 4+	Qty 10+
50	HP-1350	$3.95	$3.45	$3.15

Large Spade Quick Connectors

- Spade socket
- 9.5mm
- Pack of 4

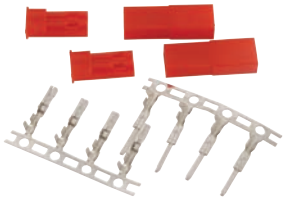
Suits 60A horn relay SY-4066

	Qty 1+	Qty 4+	Qty 10+
PT-4717	$3.95	$3.45	$3.15

Ferrule Crimp Connectors

ID	Pk	Size		Qty 1+	Qty 4+	Qty 10+
A	20	0.75mm²	PT-4433	$2.95	$2.60	$2.30
B	20	1.50mm²	PT-4533	$2.95	$2.60	$2.30
C	20	2.5mm²	PT-4633	$2.95	$2.60	$2.30

JST CRIMP CONNECTORS 2 WAY



JST type crimp connectors for hobby use. Extensively used on batteries and other connectors in RC hobbies and models. Sold as a pair of 2 mating M/F connectors. Suitable for cable up to 1.3mm OD.

	Qty 1+	Qty 10+	Qty 50+
PT-4452	$4.95	$4.45	$3.90

Quick Connect Pack

A box of all the standard 1/4" (6.35mm) QC tabs and receptacles, but also the odd QC sizes ie: 3.3mm and 4.8mm sizes. Total 160 pieces.

Includes:
- 10 x 6.4mm female crimp spade lugs wire dia 1.8mm
- 10 x 6.4mm female crimp spade lugs wire dia 3.5mm
- 10 x Close end wire crimpers - dia 2.6mm
- 10 x Close end wire crimpers - dia 3.8mm
- 5 x Contact wire connectors
- 10 x Female bullet connectors - insulated
- 10 x Male bullet connectors - insulated
- 5 x 3 way spade lug connectors 6.8mm
- 5 x spade piggyback connectors 6.8mm
- 10 x 4.9mm female spade lugs
- 10 x 8.4mm hole dia ring terminals
- 10 x 5.7mm hole dia ring terminals
- 10 x 5.3mm hole dia spade terminals
- 10 x 4.3mm hole dia spade terminals
- 5 x 3.5mm dia butt connectors
- 5 x 2.3mm dia butt connectors
- 5 x 1.8mm dia butt connectors
- 10 x 3.3mm spade connectors (tweeter connectors)
- Beware of others with less than 160 pieces..

RoHS COMPLIANT

	Qty 1+	Qty 4+	Qty 10+
PT-4530	$22.95	$20.35	$18.35

Automotive Crimp Tool with 80 Connectors

The tool will cut & strip wire, crimp connectors and also cut a range of metric bolts.

8 each of male & female blue bullets
8 each of male & female red bullets
8 each of male & female blue spades
8 each of male & female red spades
8 x red eye connectors
8 x blue butt joiners

1 YEAR WARRANTY

	Qty 1+	Qty 3+	Qty 6+
TH-1848	$13.95	$12.35	$10.95

RELATED PRODUCT...
More Crimpings Tools on pages 44 to 46

300 Piece QC Crimp Connector Pack

Contains 300pcs of only the most commonly-used quick connectors from our range of separately sold QC connectors.Insulation is injection-moulded Nylon rated to 105°C, with a moulded funnel taper in the insulation for easy cable entry. Beware of other QC connector packs that contain cheap vinyl connectors.
Pack contains (300pcs in total):

RED - FOR 0.75 - 1.0MM CABLE
20 x female/20 x male bullet
20 x 4mm/20 x 5mm ring
20 x 4mm fork/25 x female spade
25 x male spade/10 x cable joiner

BLUE - FOR 1.5 - 2.5MM CABLE
15 x female/20 x male bullet
20 x 4mm/10 x 6mm ring
25 x female/25 x male spade
10 x cable joiner

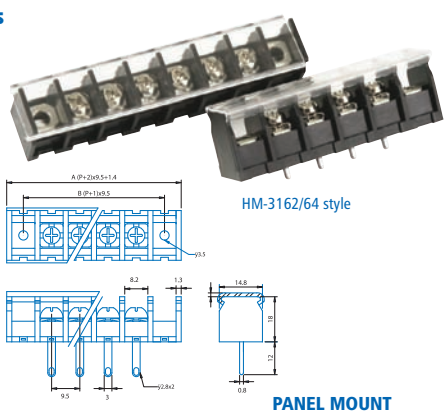
YELLOW - FOR 4-6MM CABLE
5 x 5mm/5 x 6mm ring
5 x cable joiner

	Qty 1+	Qty 4+	Qty 10+
PT-4536	$34.95	$31.45	$27.90

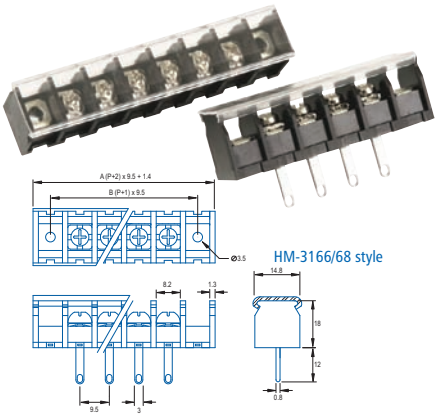
HEADER CONNECTORS

Terminal Barriers - Transparent Covers

Specifications	
Pitch	9.5mm
Barrier Material	Thermoplastic (UL-94V-0), Black
Terminals	Tin Plated Brass (Standard)
Screws	Nickel Plated Steel
Wire Range AWG	12-22 STR
Rating	25 Amp, 300VAC
Cover Material	PC
Insulation withstands voltage	AC 2000V/Min
Insulation Resistance	500Mohm or more at 500V



HM-3162/64 style



HM-3166/68 style

PC MOUNT

		Qty 1+	Qty 4+	Qty 10+
4 Way	HM-3162	$3.95	$3.45	$3.15
6 Way	HM-3164	$5.50	$4.90	$4.30

PANEL MOUNT

		Qty 1+	Qty 4+	Qty 10+
4 Way	HM-3166	$3.95	$3.45	$3.15
6 Way	HM-3168	$5.50	$4.90	$4.30

Surface Mount Screw Terminal Strips

These units feature the ability to terminate 2 or 3 sets of wires securely with the option of changing or adding connections. In classic barrier strip fashion there is a comprehensive fence between each terminal. Each sturdy block has 2 x 4mm mounting holes at each end and a insulating body with high impact plastic.

Two models available:

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Way	HM-3167	$2.95	$2.60	$2.30
3 Way	HM-3169	$3.45	$3.05	$2.75

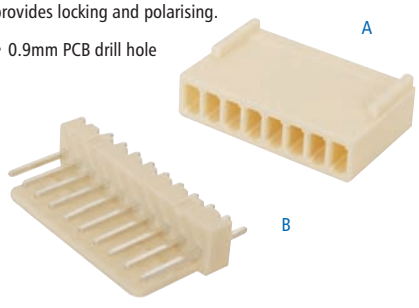
0.1" (2.54mm) Locking and Polarising Header Connectors

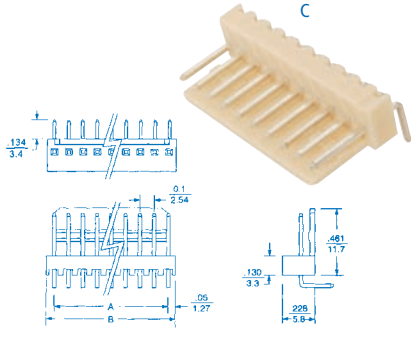
A range of connectors for PCB mounting that allow circuit boards to be plugged together at right angles or end-to-end, or cables to be plugged onto circuits boards at right angles or end-on at the edge of the PCB. Both plugs and sockets may be butted up end-to-end to form connectors with any number of ways from 2 upwards.

Technical Information:	
Voltage:	250V
Current: Brass Crimp/Tin plated:	2.5A max. (solderable)
Contact Resistance:	20mΩ max
Dielectric Withstanding Voltage:	1500VAC
Insulation Resistance:	50MΩ
Contact insertion force:	681g
Contact Retention to Housing:	3.63kg
Mating Force:	199g max
Normal Force:	200g min
Housing:	UL 94v-0 White nylon
Temperature:	0 to +75°C

Both plugs are wafer design into which square, tin-plated brass pins have been inserted. These pins protrude 3.4 mm on one side, and should be soldered to the PCB. The nylon wafer sits on the PCB and is 3.3 mm thick. The back provides locking and polarising.

- 0.9mm PCB drill hole





Suitable crimping tool for 0.1" header sockets is our Cat. TH-1834

0.1" HEADER SOCKETS, LOCKING & POLARISED See photograph "A"

Pins		Qty 1+	Qty 4+	Qty 10+
2	HM-3402	$0.50	$0.45	$0.40
3	HM-3403	$0.55	$0.47	$0.42
4	HM-3404	$0.65	$0.57	$0.50
6	HM-3406	$0.75	$0.65	$0.60
8	HM-3408	$0.95	$0.85	$0.75
10	HM-3410	$1.10	$0.95	$0.85

0.1" PIN PLUG (STRAIGHT ENTRY, LOCKING & POLARISED) See photograph "B"

Pins		Qty 1+	Qty 4+	Qty 10+
2	HM-3412	$0.20	$0.18	$0.16
3	HM-3413	$0.30	$0.25	$0.24
4	HM-3414	$0.40	$0.35	$0.30
6	HM-3416	$0.60	$0.52	$0.47
8	HM-3418	$0.80	$0.70	$0.62
10	HM-3420	$1.00	$0.90	$0.80

0.1" PIN PLUG (RIGHT ANGLE ENTRY, LOCKING & POLARISED) See photograph "C"

Pins		Qty 1+	Qty 4+	Qty 10+
2	HM-3422	$0.30	$0.25	$0.24
3	HM-3423	$0.35	$0.30	$0.27
4	HM-3424	$0.40	$0.35	$0.30
6	HM-3426	$0.60	$0.52	$0.47
8	HM-3428	$0.80	$0.70	$0.62
10	HM-3430	$0.90	$0.80	$0.70

0.156" (4mm) Locking and Polarising Header Connectors

This range is similar to the range shown above, but much more robust. The contacts are rated at 250V @ 7A AC/DC which makes them an ideal power connector to a PCB. They are end to end stackable and commonly seen as the output connector on Switchmode power supplies.

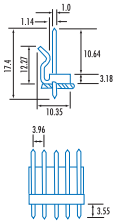
Technical Information	
Voltage:	250V
Current:	7.0A
Contact Resistance:	20mΩ max
Dielectric Withstanding Voltage:	1500V
Insulation Resistance:	500k Ohm min
Contact Insertion Force:	2.28kg
Contact Retention to Housing:	4.56kg
Wire Pull-Out force:	2.85kg
Mating Force:	0.86kg
Unmating Force:	150g
Durability:	25 cycles
Housing:	Nylon, UL 94V-2
Temperature:	-40 to 105°C

0.156" (4MM) HEADER SOCKETS, LOCKING & POLARISED

(Includes crimp Pins)

0.156" (4MM) LOCKING & POLARISED, STRAIGHT ENTRY PIN PLUG

(To match previous headers).



Pins		Qty 1+	Qty 4+	Qty 10+
2	HM-3432	$0.80	$0.70	$0.62
3	HM-3433	$0.90	$0.80	$0.70
4	HM-3434	$1.00	$0.90	$0.80
6	HM-3436	$1.30	$1.15	$1.01
8	HM-3438	$1.40	$1.25	$1.10
10	HM-3440	$1.50	$1.35	$1.20

Crimper to suit above Cat TH-1834

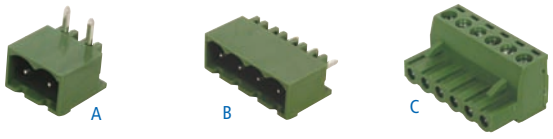
Pins		Qty 1+	Qty 4+	Qty 10+
2	HM-3442	$0.30	$0.25	$0.24
3	HM-3443	$0.35	$0.30	$0.27
4	HM-3444	$0.40	$0.35	$0.30
6	HM-3446	$0.60	$0.52	$0.47
8	HM-3448	$0.80	$0.70	$0.62
10	HM-3450	$0.90	$0.80	$0.70

HEADERS/ TERMINAL BLOCKS

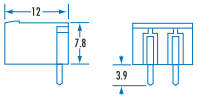
5.08mm High Quality Pluggable Terminal Blocks/Headers

Available in both horizontal-plug and vertical-plug versions, these quality headers simply solder to a PC board and are for the Pluggable Terminal Blocks (see below).

- Made from Polyamide66 plastic (UL94V-0) • 1.0mm tin-plated brass solder pins
- Excellent current and insulation characteristics.



Specifications	
Current rating	12A, 300VAC
Insulation withstands volt	2000VAC min
Insulation resistance	>5000MΩ 500VDC
PCB hole diameter	1.5mm
Pitch	5.08mm (0.200 inch)



The plug version to suit the above headers - these terminal blocks are easily plugged in, and feature nickel-plated brass cage clamps, tin-plated phosphor-bronze contacts, M3 nickel-plated steel screws.

HORIZONTAL PC MOUNT (PIC A)

Poles	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HM-3102	$0.95	$0.85	$0.75
3	HM-3103	$1.65	$1.45	$1.30
4	HM-3104	$1.95	$1.75	$1.55
6	HM-3106	$2.95	$2.60	$2.30
8	HM-3108	$3.95	$3.45	$3.15

VERTICAL PC MOUNT PLUGGABLE HEADERS (PIC B)

Poles	Cat.	Qty 1+	Qty 4+	Qty 10+
2	HM-3112	$0.95	$0.85	$0.75
3	HM-3113	$1.65	$1.45	$1.30
4	HM-3114	$1.95	$1.75	$1.55
6	HM-3116	$2.95	$2.60	$2.30
8	HM-3118	$3.95	$3.45	$3.15

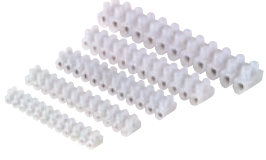
SCREW TERMINAL SOCKETS (PIC C)

Poles	Width(A)mm	Cat.	Qty 1+	Qty 4+	Qty 10+
2	11.40	HM-3122	$2.35	$1.95	$1.85
3	16.40	HM-3123	$3.60	$3.15	$2.75
4	21.40	HM-3124	$4.95	$4.45	$3.90
6	31.40	HM-3126	$6.95	$6.25	$5.50
8	41.40	HM-3128	$9.20	$8.25	$7.25

Terminal Strips

Still 12 way and capable of being divided with a sharp knife, however, the screw retention is much sturdier. Each terminal block has a mounting hole on a fixed pitch.

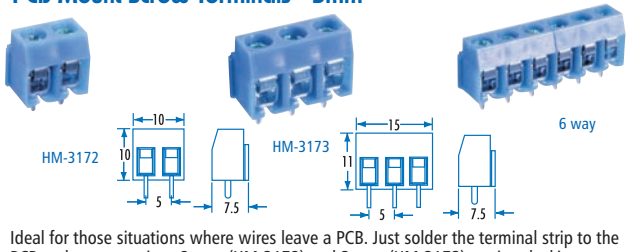
RELATED PRODUCT...
Also see Brass Busbar on page 287



Specifications	
Material	Polyamide 66 (nylon)
	UL94V-2 flame retardant
Temperature	-35°C to 110°C
Voltage	250-450V
Colour	Natural

Current	Cable Dia	Length	Pitch	Cat	Qty 1+	Qty 4+	Qty 10+
5A	3.3mm	114.5mm	10mm	HM-3194	$1.75	$1.55	$1.40
10A	4.2mm	128.8mm	11mm	HM-3196	$1.95	$1.75	$1.55
15A	4.5mm	136.8mm	12mm	HM-3200	$2.65	$2.30	$2.07
30A	5.6mm	164.5mm	15mm	HM-3198	$2.85	$2.53	$2.23
60A	6.6mm	193mm	16.3mm	HM-3204	$4.95	$4.45	$3.90

PCB Mount Screw Terminals - 5mm



Ideal for those situations where wires leave a PCB. Just solder the terminal strip to the PCB and connect wires. 2 way (HM-3172) and 3 way (HM-3173) are interlocking, so you can make up whatever size you require using these - see 6 way pictured.

		Qty 1+	Qty 4+	Qty 10+
2 Way	HM-3172	$1.20	$1.05	$0.95
3 Way	HM-3173	$1.55	$1.35	$1.20

Weidmuller PCB Mount Screw Terminals - 5.08mm

These are 5.08mm spacing, come in 2 and 3 way, are interlocking and orange in colour.

		Qty 1+	Qty 4+	Qty 10+
2 Way	HM-3130	$1.20	$1.05	$0.95
3 Way	HM-3132	$1.55	$1.35	$1.20

PCB Spring Terminal Blocks

These PCB terminal blocks retain the wire securely by a spring type clamp. The wire is held very securely but can be quickly released by depressing a release lever. The wire can be inserted/released indefinitely with virtually no deterioration of the contact/spring assembly. Both 2 & 3 pole are available and the housing of each is dove tailed to stack together and make any number of poles.

- Pitch: 5.0mm
- Housing material: PA66
- Contact/spring assembly: Stainless Steel
- Will accept wires from 22-14AWG
- Current rating 12.0A @ 300VAC
- Temperature rating: -40 to +105°C
- Power rating: 5kV rated / 250VAC Cat III
- Dimensions:
2-Way 10(L) x 13(W) x 15(H)mm,
3-Way 15(L) x 13(W) x 15(H)mm

Sizes available:
HM-3140 - 2 Way Spring Terminal Block
HM-3142 - 3 Way Spring Terminal Block

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Way	HM-3140	$2.20	$1.95	$1.75
3 Way	HM-3142	$2.90	$2.60	$2.30

Porcelain Terminal Blocks

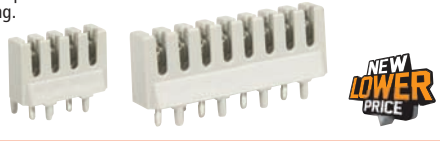
Glazed porcelain terminal blocks are ideal for high temperature situations, such as in lighting. Ask us for competitive bulk prices.

	Current	Voltage		Qty 1+	Qty 4+	Qty 10+
2 Wire Medium	10A	250VAC	HM-3182	$0.85	$0.75	$0.65
3 Wire Small	5A	380VAC	HM-3183	$0.85	$0.75	$0.65
3 Wire Large	30A	380VAC	HM-3185	$1.35	$1.20	$1.05

Punchdown Block Connectors

For use with standard 110 punch down tools. PCB mounting.

- Two sizes available:
PT-5000 4 Way
PT-5002 8 Way



		Qty 1+	Qty 4+	Qty 10+
4 Way	PT-5000	$0.95	$0.85	$0.75
8 Way	PT-5002	$1.50	$1.35	$1.20

Plug/Socket Terminal Strip

Semi permanent connection up to 12 poles.

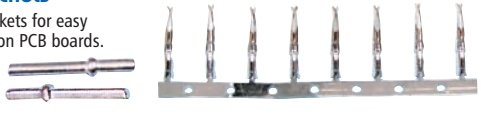
- Reliable screw down termination.
- 10A per pole.
- Supplied as a matching pair

	Qty 1+	Qty 4+	Qty 10+
HM-3202	$12.95	$11.35	$10.35

PCB Pins & Sockets

0.9mm pins and sockets for easy termination of wire on PCB boards.

- Gold flashed.



Pkt		Qty 1+	Qty 4+	Qty 10+
Pins 50	HP-1250	$4.50	$3.95	$3.60
Pins 500	HP-1252	$25.00	$22.35	$19.95
Sockets 25	HP-1260	$5.50	$4.90	$4.30

Electromechanical

Electromechanical components - switches, relays etc.. They are fairly simple devices but that belies their sophistication & need to be utterly reliable.

In a world of electronic switching we always seem to add a few more switches & relays. Take a look, for example at the SP-0900 Membrane Switch Panel on page 165. It enables you to use the non-familiar membrane 'feel' with the real-world capability of switching high current.

There will probably never be a day when we don't need electromechanical components.

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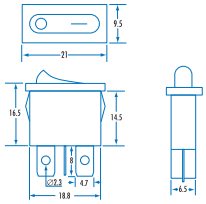
ROCKER SWITCHES

SPST - Ultra Mini

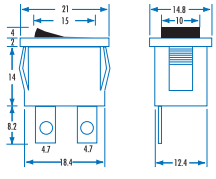
- Snap in fitting.
- SPST 250VAC 6A.
- Cutout size 6.5(W) x 19(H)mm. Black body, black actuator.
- QC tab termination 6.4mm (PT-4607)



		Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 6A	SPST	SK-0975	$1.95	$1.75	$1.55

SPST - Mini

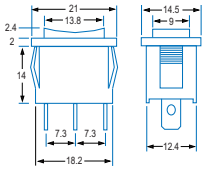
- Dimensions: 21 x 15mm
- Panel cut out size 13 x 19.5mm
- QC tab termination
- SPST 240V 6A
- Black actuator



		Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 6A	SPST	SK-0984	$1.95	$1.75	$1.55

SPDT - Centre Off

- Latching
- Voltage: 250VAC
- Current: 6 Amp



		Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 6A	SPDT	SK-0991	$4.95	$4.45	$3.90

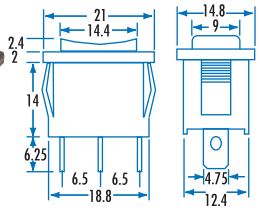
ROCKER SWITCHES

SPDT - Mini - CENTRE OFF

SPRING RETURN BOTH SIDES

Momentary contacts with spring return to centre on both sides.

- Mini QC tab termination 6.4mm (PT-4607)
- Contact arrangement SPDT N.O.

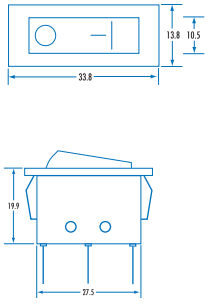


		Cat.	Qty 1+	Qty 10+	Qty 25+
250V 6A	SPDT	SK-0987	$4.95	$4.45	$3.90

SPST - Illuminated

Black body with illuminated actuator. Ideal replacements for appliances.

- Snap in fitting.
- QC tab termination 6.8mm (PT-4507)
- Cutout: 33.8 x 13.8mm

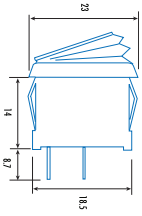


	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 15A	Blue	SK-0976	$3.50	$3.15	$2.75
240VAC 15A	Red	SK-0978	$3.50	$3.15	$2.75
240VAC 15A	Green	SK-0979	$3.50	$3.15	$2.75

SPST IP56 Rated Mini Rocker Switch

SPST mini rocker switches with spade QC lugs. Sealed with a rubber boot and IP56 rated.

Two types available:
- Black: SK-0968
- Red (illuminated): SK-0969
- Cutout: 18.8 x 12.5mm

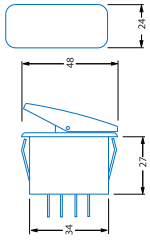


		Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	Black	SK-0968	$5.75	$4.95	$4.60
12VDC 16A	Red - Illuminated	SK-0969	$6.75	$5.95	$5.25

SPDT IP65 Illuminated Centre Off Rocker Switch

IP65 rated, illuminated switch for automotive and marine applications. Illuminates one side red and one side green.

- On-Off-On
- Rating: 14VDC, 21A
- Cutout size: 34 x 21mm

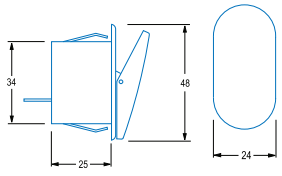


		Cat.	Qty 1+	Qty 10+	Qty 25+
14VDC 21A	SPDT	SK-0999	$12.95	$11.35	$10.35

SPST Illuminated IP56 Rated Rocker Switch

IP56 rated, large rocker actuator.

- SPST
- Illuminated red
- Rated for 12VDC 20A
- Mounting hole 20.5 x 37mm



	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 20A Red Illuminated	SK-0997	$12.95	$11.35	$10.35

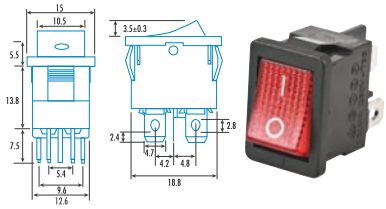
Rocker Switches

ROCKER SWITCHES (CONTINUED)

DPST - Neon Illuminated - Mini

- 240VAC
- Illuminated actuator
- Solder terminals
- QC tab termination 6.4mm (PT-4607)

NOTE!
As used in our Power Boards

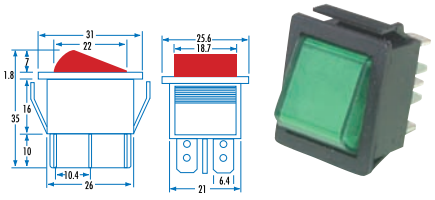


		Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 2A DPST	Red	SK-0995	$4.95	$4.45	$3.90

DPDT - Large - Neon Illuminated

Mains Illuminated. DPDT 240VAC 15 amp.

- Black body, available in red or green illumination.
- Spade lug connections.
- Cutout 27 x 22mm.
- QC tab termination 6.8mm (PT-4507)

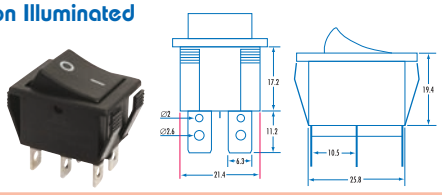


			Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 15A	DPDT	Red	SK-0982	$4.95	$4.45	$3.90
240VAC 15A	DPDT	Green	SK-0983	$4.95	$4.45	$3.90

DPDT - Large - Non Illuminated

DPDT switch with black body and black actuator.

- QC tab termination
- 240VAC 16A.
- Snap in fitting.

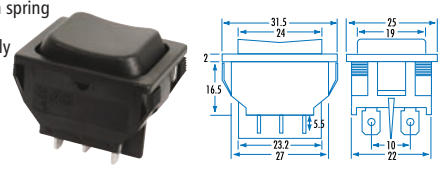


	Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 16A	SK-0981	$3.95	$3.45	$3.15

DPDT - Large - Centre/Off

Spring Return Both Sides Momentary contacts with spring returns to centre on both sides. These are commonly used for car power antennas and power windows.

- Rated at 10A 250VAC.
- QC tab termination 6.4mm (PT-4607)



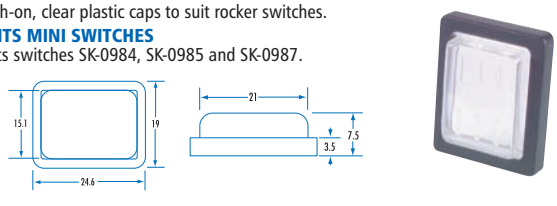
	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SK-0980	$7.95	$6.95	$6.25

Waterproof Caps for Rocker Switches

Push-on, clear plastic caps to suit rocker switches.

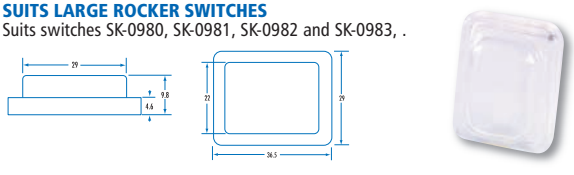
SUITS MINI SWITCHES

Suits switches SK-0984, SK-0985 and SK-0987.



SUITS LARGE ROCKER SWITCHES

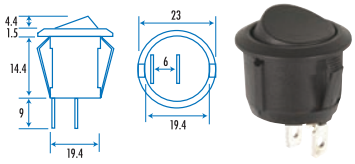
Suits switches SK-0980, SK-0981, SK-0982 and SK-0983, .



	Cat.	Qty 1+	Qty 10+	Qty 25+
Suits Larger Rocker Switches	SK-0972	$1.95	$1.75	$1.55
Suits Mini Rocker Switches	SK-0970	$1.40	$1.25	$1.10

SPST - Round Actuator

- Snap fits into a 20mm round hole
- 10 amps @ 250VAC
- Black body with black actuator
- QC tab termination 6.4mm (PT-4607)

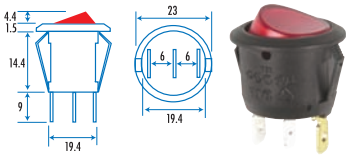


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SK-0960	$2.25	$1.95	$1.80

SPST - Round Actuator

Illuminated Red

- Snap fits into a round hole
- 6A @ 250VAC
- Black body with red neon actuator
- QC tab termination 6.4mm (PT-4607)

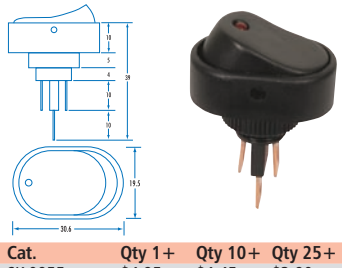


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 6A	SK-0962	$2.95	$2.60	$2.30

SPST - Rocker Actuator

LED Illuminated - Red
This is a classy switch. It is a rocker, but only needs a round 12mm hole (with 1mm flat). It is SPST and can handle a massive 30 amps at 12VDC. There is an LED in the actuator which lights from a 9 - 12V source.

- QC tab termination 6.8mm (PT-4507)

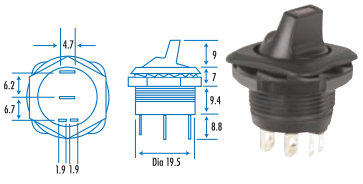


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 30A	SK-0955	$4.95	$4.45	$3.90

SPST - Paddle

LED Illuminated - RED
Paddle type actuator with built in red LED

- Mounts easy in a 20mm hole.
- 10 amps @ 250VAC
- LED requires 12V @ 20mA
- Black body
- QC tab termination 6.8mm (PT-4507)
- Solder tabs for LED

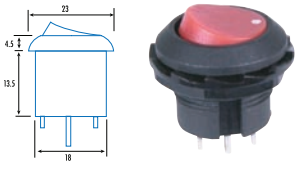


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SK-0964	$4.95	$4.45	$3.90

DPDT Round Actuator - Red

This rocker mounts in a round 18mm hole.

- DPDT
- 6 amps @ 250VAC
- Black body, red actuator
- Solder pins
- 18mm mounting hole

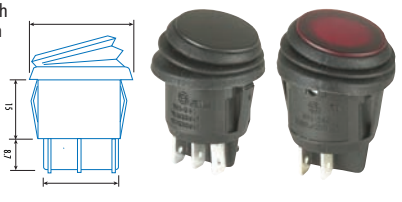


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SK-0994	$4.95	$4.45	$3.90

DPDT - Round Actuator - IP65

DPDT round rocker switches with mini spade QC lugs. Sealed with a rubber boot and IP65 rated.

- 20mm mounting hole



	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A Black	SK-0966	$6.95	$6.25	$5.50
250VAC 10A Red - Illuminated	SK-0967	$7.95	$6.95	$6.25

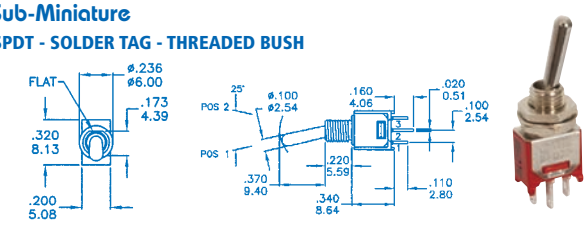
TOGGLE SWITCHES

SOANAR LIFETIME GUARANTEE

General Specifications:	Sub Miniature	Miniature
Electrical life (make - and - break cycles at full load)	30,000	40,000
Contact resistance (@2 - 4VDC @ 100mA)	20MΩ	10MΩ
Insulation resistance (any contact to body)	1,000MΩ	1,000MΩ
Dielectric strength (@ sea level)	1,000VRMS	1,000VRMS
Contact rating (with resistive load)	1A @ 250VAC	2A @ 250VAC
Contact rating (with resistive load)	3A @ 28VDC	5A @ 28VDC

Sub-Miniature

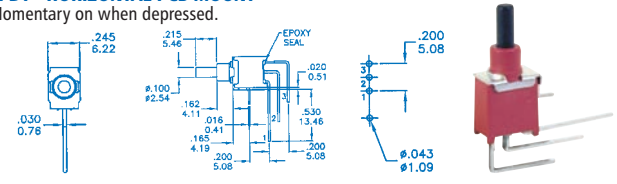
SPDT - SOLDER TAG - THREADED BUSH



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
SPDT (on - on)	ST-0300	$2.95	$2.60	$2.30

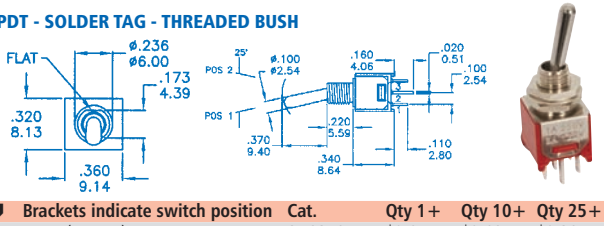
SPDT - HORIZONTAL PCB MOUNT

Momentary on when depressed.



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
SPDT (on-mom)	SP-0380	$3.95	$3.45	$3.15

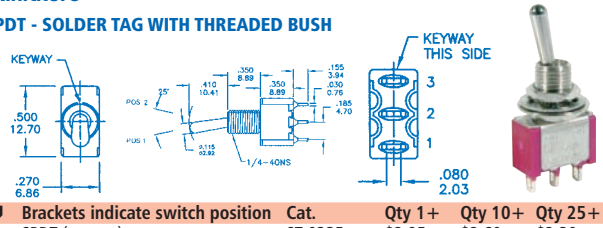
DPDT - SOLDER TAG - THREADED BUSH



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
DPDT (on - on)	ST-0310	$2.95	$2.60	$2.30

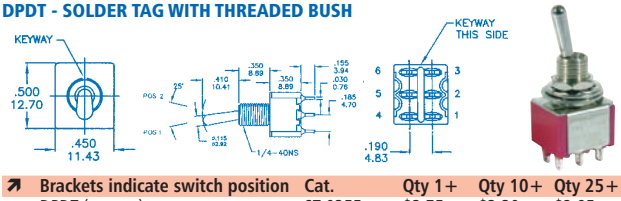
Miniature

SPDT - SOLDER TAG WITH THREADED BUSH



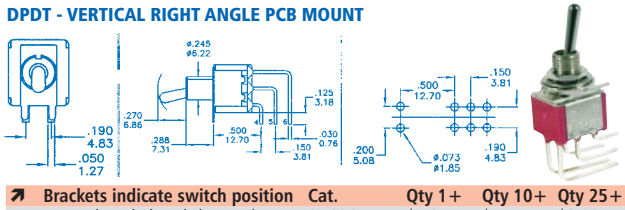
Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
SPDT (on - on)	ST-0335	$2.95	$2.60	$2.30
SPDT Centre Off (on-off-on)	ST-0336	$3.45	$3.05	$2.75

DPDT - SOLDER TAG WITH THREADED BUSH



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
DPDT (on - on)	ST-0355	$3.75	$3.30	$2.95
DPDT Centre Off (on - off - on)	ST-0356	$4.50	$3.95	$3.60
DPDT Mom Centre Off (mom-off-mom)	ST-0358	$4.95	$4.45	$3.90
DPDT Mom (on - mom)	ST-0357	$4.50	$3.95	$3.60

DPDT - VERTICAL RIGHT ANGLE PCB MOUNT

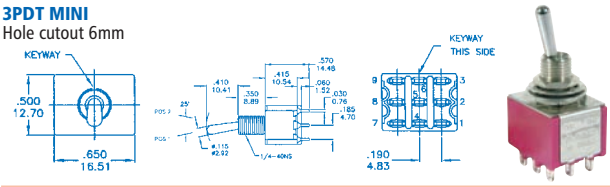


Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
DPDT Threaded Bush (on - on)	ST-0365	$4.95	$4.45	$3.90

Miniature (continued)

3PDT MINI

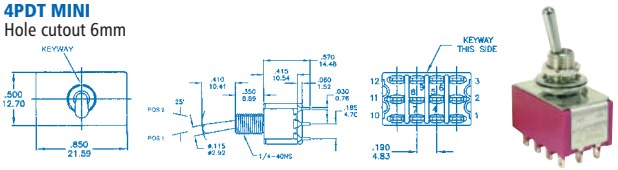
Hole cutout 6mm



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
3PDT (on - on)	ST-0505	$7.95	$6.95	$6.25

4PDT MINI

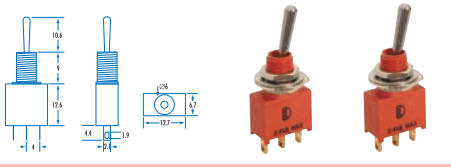
Hole cutout 6mm



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
4PDT (on - on)	ST-0506	$8.95	$7.95	$6.95

Sealed Miniature

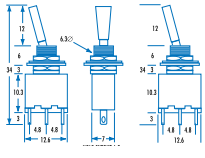
Ideal for use in wet or moist areas.
Rated at 2A, 250VAC.
Splash post IP54 rated.



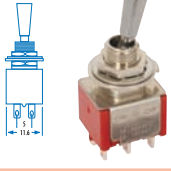
Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
SPDT (on - on)	ST-0554	$6.95	$6.25	$5.50
DPDT (on - on)	ST-0555	$7.95	$6.95	$6.25

Miniature Flattened Actuator

ST-0546 hole cutout 6.3mm



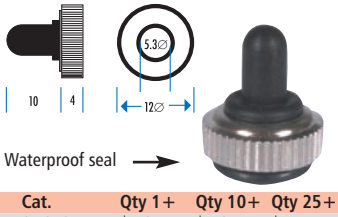
ST-0547 hole cutout 6.0mm



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
SPDT (on - on)	ST-0546	$5.50	$4.90	$4.30
DPDT (on - on)	ST-0547	$5.95	$5.25	$4.75

Rubber Boot with Seal to Suit Mini Toggles

This waterproof hood replaces the standard mounting nut and has an integrated 'O' ring to seal your equipment from outside moisture.
- Suits our mini toggle switches.
- True waterproof seal



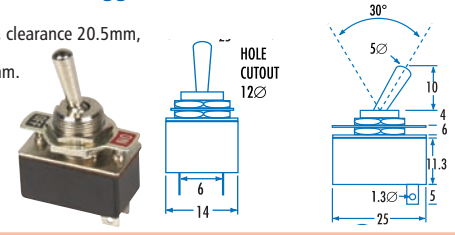
	Cat.	Qty 1+	Qty 10+	Qty 25+
	ST-0594	$1.85	$1.65	$1.45

Standard Panel Mount Toggle Switches

SPST

Body size 26 x 14mm, clearance 20.5mm,

- Mounting hole 12mm.
- Rated 2A 250V.
- Solder terminals



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 2A (on - off)	ST-0570	$2.65	$2.30	$2.07

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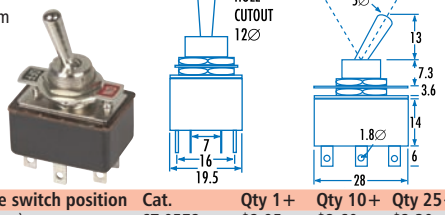
Toggle Switches

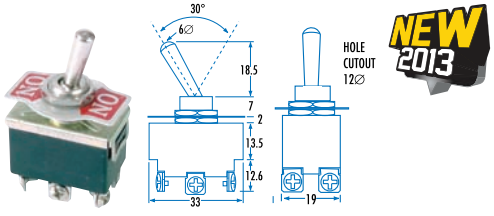
TOGGLE SWITCHES (CONTINUED)

DPDT
- Body size 29.5 x 18mm
- Clearance 23mm
- Mounting hole 12mm
- Rated 3A 250V
- Solder terminals



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 3A (on - on)	ST-0572	$2.95	$2.60	$2.30

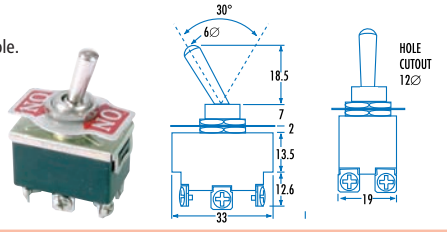
DPDT 6A 250VAC
- DPDT
- 6A
- 250VAC



	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 6A (on-on)	ST-0588	$3.95	$3.45	$3.15

DPDT - EXTRA HEAVY DUTY
Rated at 10A 250VAC, this switch will handle mains power switching.

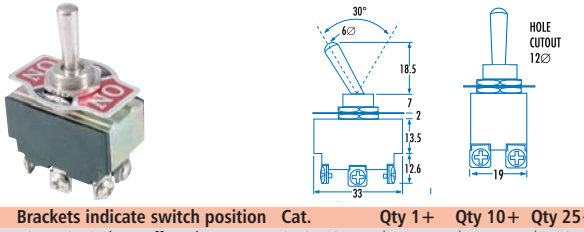
- Screw terminals
- 12mm mounting hole.



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A (on - on)	ST-0575	$4.95	$4.45	$3.90

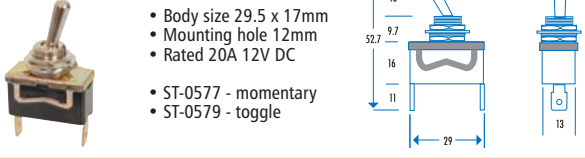
DPDT - HEAVY DUTY CENTRE OFF
Huge 10A 125V rating, chrome toggle with on/off indicator plate.

- DPDT centre off. Body size 35 x 20mm, clearance 26mm, mounting hole 12mm.
- Screw terminals. Same physical size as ST-0575 above.



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 10A(on - off - on)	ST-0576	$4.95	$4.45	$3.90

SPST
Ideal for any high current 12VDC switching application. Our ST-0578 Missile Switch Cover is perfectly suited to this switch.



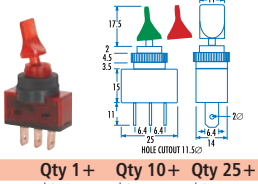
- Body size 29.5 x 17mm
- Mounting hole 12mm
- Rated 20A 12V DC

- ST-0577 - momentary
- ST-0579 - toggle

Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 20A Momentary (off - mom)	ST-0577	$6.50	$5.75	$4.95
12VDC 20A Toggle (on - off)	ST-0579	$5.95	$5.25	$4.75

12V Illuminated Duckbill Actuator
Actuator illuminates when switch is on.

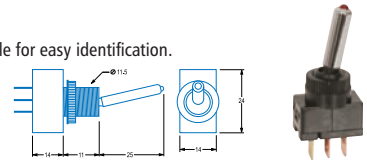
Two colours available.
- Rated at 12VDC 10A SPST.
- QC tab termination 6.8mm (PT-4507)



Brackets indicate switch position	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 10A Red (on - off)	ST-0580	$3.95	$3.45	$3.15
12VDC 10A Green (on - off)	ST-0582	$3.95	$3.45	$3.15

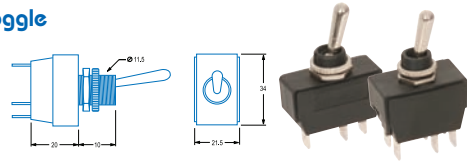
SPST Illuminated
Illuminated by an LED in the toggle for easy identification.

- SPST
- Illuminated red
- Rated for 12VDC 20A
- Mounting hole 11.5mm



			Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC	20A	SPST	ST-0587	$4.95	$4.45	$3.90

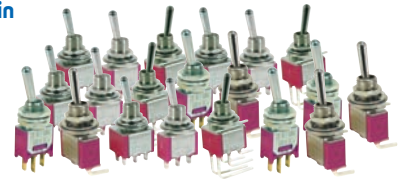
Heavy Duty Toggle
- Mounting hole 11.5mm
- UL61058 rating: 12(4)A 250VAC
- ST-0586 is Centre-Off.



12VDC	277VAC		Cat.	Qty 1+	Qty 10+	Qty 25+
20A	20A	SPST	ST-0581	$4.95	$4.45	$3.90
20A	20A	SPDT	ST-0583	$5.45	$4.90	$4.30
20A	16A	DPDT	ST-0585	$7.95	$6.95	$6.25
20A	16A	DPDT - C/Off	ST-0586	$7.95	$6.95	$6.25

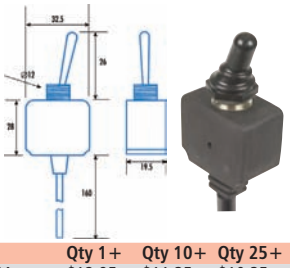
Toggle Switch Bargain Bag - 20 Pack
A bargain bag of surplus switches, containing 20 various mini and micro toggle switches.

Switch contents wil vary from the ones shown here



Various Models	Cat.	Qty 1+
Pack 20	ST-0372	$19.95

24V 15A SPST Sealed Toggle
This large toggle switch is specially designed for marine conditions. A weatherproof rubber boot covers the actuator, and the switch mechanism is encapsulated in rubber. For this reason, 150mm fly leads are attached instead of the usual terminals. Not only limited to marine use, it can also be used as an ultra-durable switch in many applications.
- Ideal for marine or automotive use.
- Max volt rating: 24V @ 15 amps



		Cat.	Qty 1+	Qty 10+	Qty 25+
24VDC 15A	SPST	ST-0574	$12.95	$11.35	$10.35

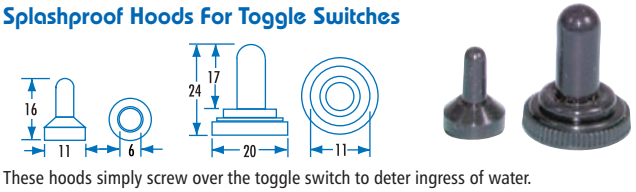
Missile Switch Protective Cover
Military style missle switch cover featuring a heavy duty hinged, spring return protective cover. Covers turn switch off when snapped down. Fit any toggle switch with a 12mm mounting hole and appropriate length actuator.

SWITCH (Cat. ST-0579) SHOWN MOUNTED IN MISSILE COVER (switch not included).

WHEN COVER IS DOWN, ACTUATOR CANNOT MOVE

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	ST-0578	$6.95	$6.25	$5.50
Carbon Fibre Style	ST-0584	$6.95	$6.25	$5.50

Splashproof Hoods For Toggle Switches



These hoods simply screw over the toggle switch to deter ingress of water.

MINIATURE - INCLUDES NUTS FOR BOTH MINI & ULTRA-MINI TOGGLE SWITCHES.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ST-0590	$1.85	$1.65	$1.45

STANDARD (LARGE)

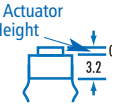
	Cat.	Qty 1+	Qty 10+	Qty 25+
	ST-0592	$2.85	$2.53	$2.23

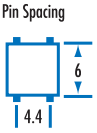
TACTILE SWITCHES

SPST Micro

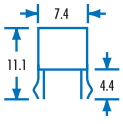
Rating:	12VDC 50mA
Operating Temp	-20~70°C
Contact Resistance	100mΩ Max.
Insulation Resistance	100MΩ Min. at 100VDC
Withstand Voltage	250VAC for 1 minute
Contact Arrangement	SPST N.O.
Action	Momentary

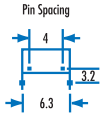
VERTICAL MOUNT





RIGHT-ANGLE VERSION





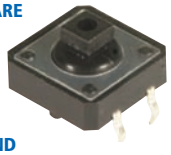
Vertical Mount	Actuator	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	0.7mm	SP-0600	$0.95	$0.85	$0.75
12VDC 50mA	1.4mm	SP-0601	$0.95	$0.85	$0.75
12VDC 50mA	3.5mm	SP-0602	$0.95	$0.85	$0.75
12VDC 50mA	6.0mm	SP-0603	$0.95	$0.85	$0.75
Right Angle					
12VDC 50mA	0.7mm	SP-0604	$1.00	$0.90	$0.80
12VDC 50mA	1.4mm	SP-0605	$1.00	$0.90	$0.80
12VDC 50mA	3.5mm	SP-0606	$1.00	$0.90	$0.80
12VDC 50mA	6.0mm	SP-0607	$1.00	$0.90	$0.80

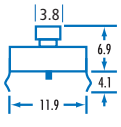
SPST PCB Mount

Specifications	
Rating	12VDC 50mA
Operating Temperature	20~70°C
Contact Resistance	100mΩ Max.
Insulation Resistance	100MΩ Min. at 100VDC

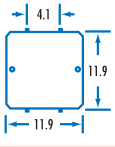
Withstand Voltage: 250VAC for 1 minute
Contact Arrangement: SPST N.O.
Momentary action

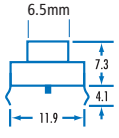
SQUARE





ROUND

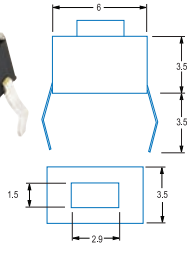




		Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	Square	SP-0608	$1.25	$1.10	$0.97
12VDC 50mA	Round	SP-0609	$1.25	$1.10	$0.97

SPST PCB - 2 Pin

Specifications	
Rating	12VDC 50mA
Operating Temperature	-16~60°C
Contact Resistance	100mΩ Max.
Insulation Resistance	100MΩ
Withstand Voltage	250VAC for 1 minute
Contact Arrangement	2 pin SPST N.O
Action	Momentary
Size	6 x 3.5 x 3.5mm

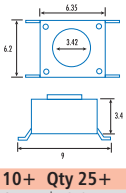


		Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	PCB Mount	SP-0611	$0.95	$0.85	$0.75

SPST SMD

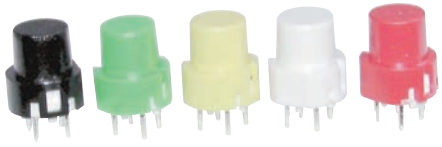
This switch is similar to SP-0600 but surface mount. Packet of 10

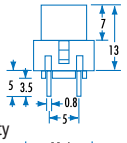
Specifications	
Size	6x6mm
Height	3.85mm
Contact Arrangement	SPST N.O.
Contact Rating	50mA, 12VDC
Contact Resistance	100mΩ max



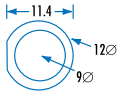
		Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	Pkt 10	SP-0610	$13.95	$12.35	$10.95

SPST PCB Mount Snap Action - Round





PCB Mount, single pole, momentary. Suitable for keyboards, security systems, etc. Available in 5 colours.



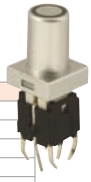
- These switches are normally open SPST. When button is depressed the switch closes, but only while the button is down.
- Contact rating 10mA/35V DC. Pin spacing 5mm

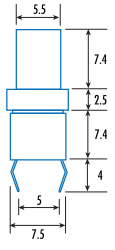
	Cat.	Qty 1+	Qty 10+	Qty 25+
35VDC 10mA Red	SP-0720	$1.45	$1.30	$1.15
35VDC 10mA Black	SP-0721	$1.45	$1.30	$1.15
35VDC 10mA Yellow	SP-0722	$1.45	$1.30	$1.15
35VDC 10mA White	SP-0723	$1.45	$1.30	$1.15
35VDC 10mA Green	SP-0724	$1.45	$1.30	$1.15

SPST PCB Mount with LED

- Vertical
- Metallic look

Specifications	
Rating	12VDC 50mA
Operating Temperature	-50 ~ 70° C
Contact Resistance	100mΩ Max.
Insulation Resistance	100MΩ min at 100VDC
Withstand Voltage	250VAC for 1 minute
Contact Arrangement	SPST N.O.
Action	Momentary
LED Power Supply	3.5-4V DC @ 25mA

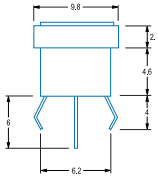




Vertical		Cat	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	Red	SP-0612	$4.45	$3.95	$3.45
12VDC 50mA	Green	SP-0613	$4.45	$3.95	$3.45
12VDC 50mA	Blue	SP-0614	$4.45	$3.95	$3.45

SPST PCB Mount - Vertical with LED

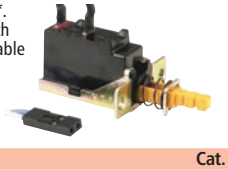
Specifications	
Rating	12VDC 50mA
Operating Temperature	-50 ~ 70° C
Contact Resistance	100mΩ Max.
Insulation Resistance	100MΩ min at 100VDC
Withstand Voltage	250VAC for 1 minute
Contact Arrangement	SPST N.O.
Action	Momentary
LED Power Supply	3.5-4V DC @ 25mA

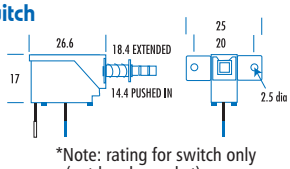


		Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50mA	Red	SP-0620	$3.95	$3.45	$3.15
12VDC 50mA	Green	SP-0621	$3.95	$3.45	$3.15
12VDC 50mA	Blue	SP-0622	$3.95	$3.45	$3.15

ATX Computer Power Supply Switch

Replacement Power Switch. 250VAC 10A*. Complete with connecting cable & 2 pin plug.





*Note: rating for switch only (not header socket).

	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SP-0748	$14.95	$13.35	$11.70

BELL PUSHBUTTONS

Illuminated Bell Pushbutton

This door bell button has a small globe mounted behind which illuminates the pushbutton and an area where you can place your name or street number. Supplied with 12V globe, which also works on lower voltage.

- Contact Arrangement SPST N.O.
- Globe in parallel with contacts

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pushbutton	SP-0782	$7.95	$6.95	$6.25
Spare Globe	SL-2720	$1.95	$1.75	$1.55

Bell Pushbutton

Ideal replacement for doorbells.

- Contact Arrangement SPST N.O.
- Size 60(L) x 32(W) x 12(D)mm
- Biege in colour

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SP-0780	$4.95	$4.45	$3.90

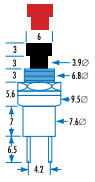
Pushbutton Switches

MOMENTARY SWITCHES

SPST - Miniature

125VAC 1 amp rating.
Momentary action.

- Push-on

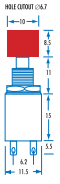


	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 1A Red	SP-0710	$1.65	$1.45	$1.30
125VAC 1A Black	SP-0711	$1.65	$1.45	$1.30

SPST

SPST momentary push on switch
Rated @ 1.5A 250VAC.
Actuator diameter 10mm.

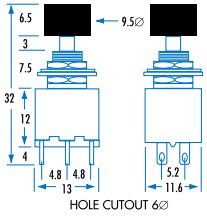
- Cutout 7mm.
- Will panel mount on 1/2" centres.



	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 1.5A	SP-0702	$3.95	$3.45	$3.15

DPDT

- Rated 3A 125VAC
- 6mm mounting hole.
- Momentary Action DPDT
- Black Actuator.
- The quality of the switch can be felt when actuated.



	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 3A	SP-0714	$7.95	$6.95	$6.25

Push Button Switch Caps

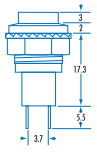
Black caps which press fit over Push Button switches with a shaft diameter of 2.54mm (0.1inch). OD: 5mm, Height: 5mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 10	SP-0596	$4.95	$4.45	$3.90

SPST Panel Mount

Very attractive small round momentary push on switch, with black body and black actuator, rated @ 1.5A 250VAC.

- Contact Arrangement SPST N.O.
- Cutout is 12.5mm.
- Solid construction

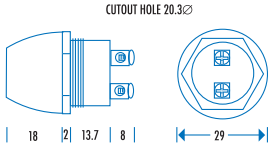


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 1.5A	SP-0700	$3.95	$3.45	$3.15

Large Waterproof Pushbutton Switch

Plastic housing with brass 5A DC contacts. Rubber cap over housing renders assembly virtually waterproof.

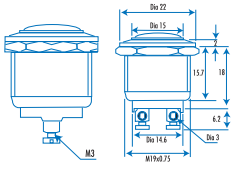
- Requires 22mm mounting hole.
- Screw terminals.
- Ideal for horn button, starter motor activation, etc.
- Contact Arrangement SPST N.O.



	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 5A	SP-0732	$4.95	$4.45	$3.90

Metal Finish Pushbutton

- Silver metal body
- Rated 8A @ 125VAC or 4A @ 250VAC
- Momentary action
- 19mm mounting hole
- Screw terminal termination
- Contact Arrangement SPST N.O.

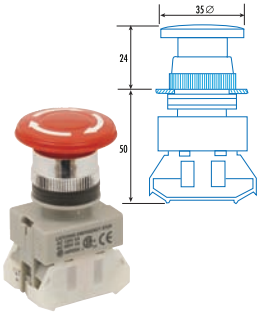


	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 8A	SP-0755	$5.95	$5.25	$4.75

Latching Emergency Stop Switch

Essential for installations of industrial or lab equipment. Latching actuator with rotating release and normally closed contacts. When the actuator is pushed in, the normally closed contacts open and the switch is latched, ensuring the equipment can't be operated until the switch is intentionally disengaged by rotating the actuator and releasing. It has two independent sets of contacts; normally open and normally closed.

Specifications	
Configuration	2 contact sets, normally closed (RED) & normally open (GREEN)
Actuation	Push off, rotate on
Contact rating	125VAC 6A, 300VAC 3A
Mounting hole	22mm

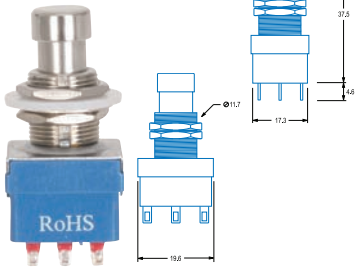


	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 6A	SP-0786	$9.95	$8.75	$7.75

3PDT Heavy Duty Foot Switch

Being 3 pole means you can wire your stompbox projects to be true bypass. It also has a low profile body so it can be accommodated in shallow enclosures and it has a solid, positive click on/off action. Heavy duty for the rough and tumble world of rock n' roll.

- Push on - push off
- 250VAC 2A rated.
- Hole size: 12mm

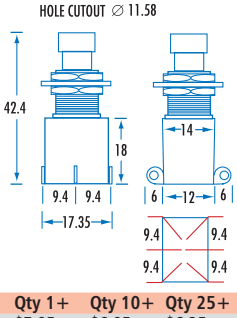


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 2A	SP-0766	$11.95	$10.70	$9.50

DPDT Heavy Duty Foot Switch

The alternative action switch (push on, push off).

- Contact rating with resistive load 2A@250VAC.
  Contact resistance <0.08Ω.



	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 2A	SP-0764	$7.95	$6.95	$6.25

Foot Switch

This foot switch is momentary action and can be wired to be either push-on or push-off. The switch is rated at 250V 10 amp. The switch has a positive switch feel and an audible "click" when pressed. Could be used in PA applications, dictaphones etc.

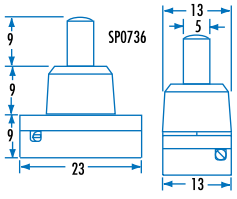
- Switch size 80(W) x 80(L) x 30(D)mm.
- Colour is grey, cable is 850mm long.

	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 10A	SP-0760	$24.95	$22.35	$19.70

Bedlamp Switch

- Panel hole 10mm.
- 240VAC 2A rating.
- Cutout 16(dia.)mm
- Single pole - single throw .

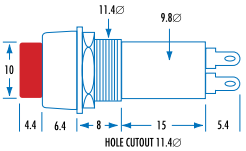
TECH TIP!
Sorry! we've tried to find a DPST version of this switch but it just does not seem to be available.



		Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 2A	SPST	SP-0736	$1.95	$1.75	$1.55

PUSHBUTTON SWITCHES

SPST Square



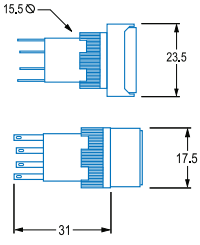
Rated 3A 250V AC. Mounting hole 12mm

Cat. SP-0716 Push-on Momentary SPST Red Actuator
Cat. SP-0718 Push-on/Push off SPST Black Actuator (Latching)
Cat. SP-0717 Push-Off (N/C) SPST Momentary - Red Actuator

	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 3A Momentary	SP-0716	$1.95	$1.75	$1.55
250VAC 3A Push on Push off	SP-0718	$1.95	$1.75	$1.55
250VAC 3A Momentary (NC)	SP-0717	$1.95	$1.75	$1.55

DPDT Illuminated - IP65

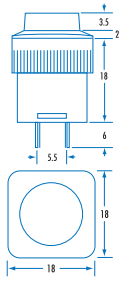
- Available in momentary or on/off action
- Rated for 250VAC 5A
- 12VDC LED illumination
- Mounting hole 15mm
- IP65 rated
- Contact arrangement DPDT N.O./N.C.



Rating	Colour	Action	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 5A	Red	Momentary	SP-0741	$9.95	$8.75	$7.75
250VAC 5A	Red	Push On Push Off	SP-0745	$12.95	$11.35	$10.35
250VAC 5A	Green	Momentary	SP-0747	$9.95	$8.75	$7.75
250VAC 5A	Green	Push On Push Off	SP-0749	$12.95	$11.35	$10.35

SPST LED Illuminated

These short bodied pushbuttons are available in 2 styles.
Both have red LEDs behind a red diffused actuator.
Rated at 1.5A 250VAC.
LED needs 2VDC @ 20mA.



SP-0706 Push On Momentary SPST. Red illuminated actuator.
SP-0704 Push On / Push Off SPST. Red illuminated actuator (Latching)

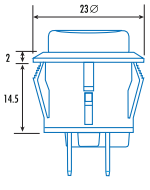
	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 1.5A Momentary	SP-0706	$5.95	$5.25	$4.75
250VAC 1.5A Push On Push Off	SP-0704	$5.95	$5.25	$4.75

Round - IP56

IP56 rated round 'pushbutton switches.

NEW 2013

- QC spade lugs.
- Push on/push off
- Mounting hole: 20mm dia



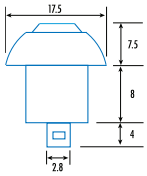
		Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
	DPST 250VAC 6A	Black	SP-0743	$5.95	$5.25	$4.75
NEW	DPST 250VAC 6A	Red Illuminated	SP-0751	$6.95	$6.25	$5.50
	SPST 250VAC 1.5A	Red Illuminated	SP-0744	$6.95	$6.25	$5.50

GIFT CARD

Can't find what to buy? Give a Jaycar Gift card and let them choose!

SPST Dome - IP67

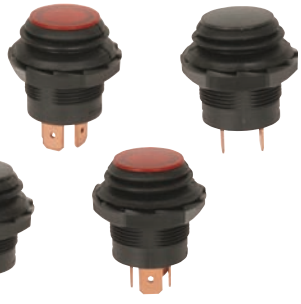
- IP67 rated
- Momentary action
- Mounting hole 12mm
- Contact arrangement SPST N.O.

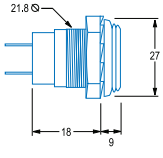


		Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
50V	100mA	Black	SP-0656	$4.95	$4.45	$3.90
50V	100mA	Red	SP-0657	$4.95	$4.45	$3.90

SPST Round - IP56

- Available in momentary or on/off action
- IP56 rated
- Rated for 14V 10A
- Mounting hole 22mm
- Contact arrangement SPST N.O.



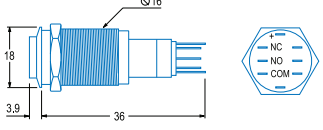


			Cat.	Qty 1+	Qty 10+	Qty 25+
12V 10A	Black	Momentary	SP-0756	$6.95	$6.25	$5.50
12V 10A	Red	Momentary Illuminated	SP-0757	$8.95	$7.95	$6.95
12V 10A	Black	Push On Push Off	SP-0758	$6.95	$6.25	$5.50
12V 10A	Red	Push On Push Off Illum	SP-0759	$8.95	$7.95	$6.95

DPDT Illuminated - IP67

IP67 rated for industrial use or other harsh environments. Illuminated, DPDT (N.O./N.C.), DPDT, on-off or momentary action. Rated for 250VAC@3A, with 12VDC LED illumination. Mounting hole 16mm.

- Red Cat SP-0791
- Green Cat SP-0792
- Blue Cat SP-0793
- Momentary - Red Cat SP-0796
- Momentary - Green Cat SP-0797

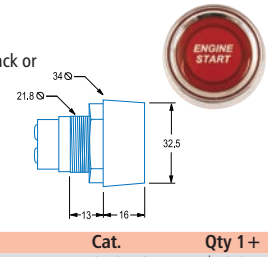


Rating	Colour	Action	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 3A	Red	on - off	SP-0791	$14.95	$13.35	$11.70
250VAC 3A	Green	on - off	SP-0792	$14.95	$13.35	$11.70
250VAC 3A	Blue	on - off	SP-0793	$14.95	$13.35	$11.70
250VAC 3A	Red	Momentary	SP-0796	$12.50	$10.95	$9.95
250VAC 3A	Green	Momentary	SP-0797	$12.50	$10.95	$9.95

IGNITION SWITCHES

Engine Start Switch

- Keyless engine start for track or street use
- Illuminated momentary action pushbutton
- Rated for 12VDC 50A
- Mounting hole 22mm
- Contact arrangement SPST N.O.



	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 50A	SP-0773	$19.95	$17.70	$15.70

Slide & Micro Switches

Inline Low Voltage Switch

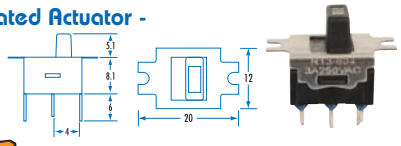
Simply connect your plug pack adaptor into this handy in-line switch to provide quick and easy on/off control. Much easier than unplugging the connector or reaching for the power point when you want to switch your device on or off. Fitted with 2.1mm DC plug & socket and rated at 24VDC at 2 amps.

	Cat.	Qty 1+	Qty 10+	Qty 25+
24VDC 2A	SK-0998	$7.95	$6.95	$6.25

SLIDE SWITCHES

These slide switches have silver plated contacts, contact ratings of 0.3A @ 100V min, 25mΩ contact resistance, 100MΩ plus insulation resistance (at 500VDC) & endure about 10,000 cycles.

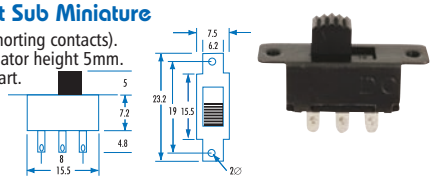
SPDT with LED Illuminated Actuator - Panel or PCB Mount



Current rating 3A @ 250VAC
LED requires 2 volts.
LED colour is red.

	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 3A	SS-0825	$3.95	$3.45	$3.15

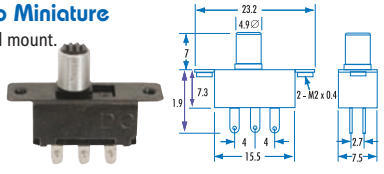
DPDT Panel Mount Sub Miniature



Break before make (non shorting contacts).
Size 23(L) x 7(W)mm, Actuator height 5mm.
Mounting holes 19mm apart.
Screws to mount switch
Cat. HP-0390.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SS-0852	$1.45	$1.30	$1.15

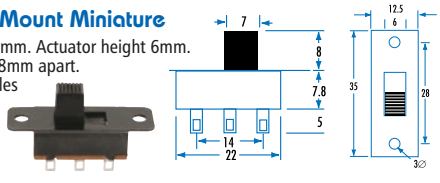
DPDT Panel Mount Sub Miniature



(Spun aluminium actuator) Panel mount.
Size 23(L) x 7(W)mm. Actuator height 7mm.
Mounting holes 19mm apart.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SS-0812	$1.45	$1.30	$1.15

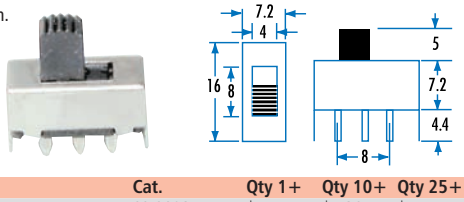
DPDT Panel Mount Miniature



Size 35(L) x 13(W)mm. Actuator height 6mm.
Mounting holes 28mm apart.
3mm diameter holes for screws.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SS-0821	$1.25	$1.10	$0.97

DPDT PCB Mount Sub Miniature



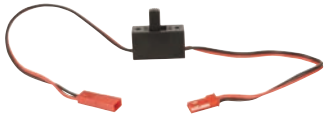
Size 16(L) x 7.2(W)mm.
Actuator height 5mm.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SS-0823	$1.45	$1.30	$1.15

Inline JST Switch Kit

JST switches and connectors provide an unobtrusive solution to power control. They are small so will fit comfortably in the chassis of an RC vehicle. This kit includes a JST switch with a male and female JST connector on each end attached to a 140mm wire. Great for hobby applications such as model trains, remote control helicopters and cars, or simple around the house projects that require discrete and simple switching.

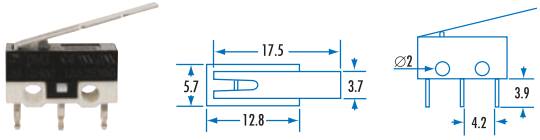
- Includes mounting bracket and screws
- Switch dimensions: 25(L) x 25(H) x 9(D)mm



	Cat.	Qty 1+	Qty 10+	Qty 50+
	SS-0826	$3.95	$3.45	$3.15

MICROSWITCHES

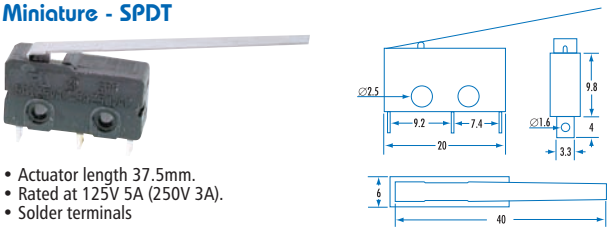
Subminiature - SPDT



- Actuator length 14mm
- Rated at 125V 3A
- Solder terminals

	Cat.	Qty 1+	Qty 10+	Qty 25+
125V 3A SPDT On - On	SM-1036	$3.95	$3.45	$3.15

Miniature - SPDT



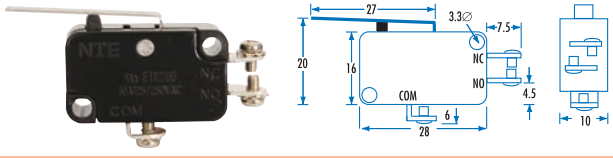
- Actuator length 37.5mm.
- Rated at 125V 5A (250V 3A).
- Solder terminals

	Cat.	Qty 1+	Qty 10+	Qty 25+
125V 3A SPDT On - On	SM-1038	$4.95	$4.45	$3.90

RELATED PRODUCT...
See page 316 for Battery Isolator Switches

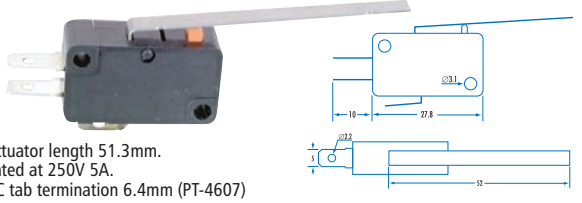
RELATED PRODUCT...
See page 165 for 6 way Switch & Relay Panel

Standard - SPDT



	Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 10A SPDT On - On	SM-1040	$3.75	$3.30	$2.95

Extended Actuator - SPDT



- Actuator length 51.3mm.
- Rated at 250V 5A.
- QC tab termination 6.4mm (PT-4607)

	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 5A SPDT On - On	SM-1039	$3.75	$3.30	$2.95

Grey Water Pump Switch

Makers Name: Peter de Jong
Location: Australian Capital Territory

Back in the days of the great drought, and before grey water became fashionable one had to build their own grey water pump switch.

I built the device using some parts from Jaycar. It works by turning on the pump when the grey water reaches the top float switch, and turns off the pump when the water reaches the bottom float switch.

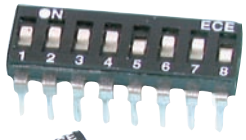
It's being working for over eight years without missing a beat.

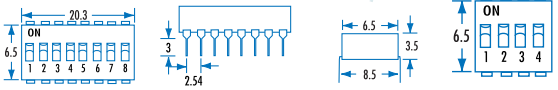
For more details scan the QR code or go to www.jaycar.com.au/makers

DIP SWITCHES

DIP Switches

- End stackable
- Moulded 0.3" IC packing outline for automatic insertion
- Smaller sized
- Twin contact design
- Gold plated contact & tin plated terminals.
- Switching: 25mA 24VDC
- Non-Switching: 100mA 50VDC
- Contact Resistance: Initial 50mΩ max
- Dielectric Strength: 500VDC min 1 minute



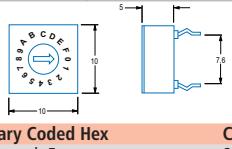


	Type	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
	2 Way	4 pin DIP	SM-1012	$1.55	$1.35	$1.20
	3 Way	6 pin DIP	SM-1013	$1.75	$1.55	$1.40
	4 Way	8 pin DIP (low profile)	SM-1020	$1.95	$1.75	$1.55
	6 Way	12 pin DIP	SM-1015	$2.15	$1.90	$1.70
	8 Way	16 pin DIP (low profile)	SM-1024	$2.40	$2.15	$1.90
	10 Way	20 pin DIP	SM-1017	$2.65	$2.30	$2.07
	12 Way	24 pin DIP	SM-1018	$2.90	$2.60	$2.30

Binary Coded DIL Rotary Switches

These tiny switches are designed for PCB use. These pins are moulded in and fully sealed. The body is moulded in UL 94V-0 flame-retardant plastic.

Specifications	
Contact rating	Switching 25mA@24VDC
Non Switching	100mA @50VDC (dry contact switching)
Contact Resistance	100mΩ max
Insulation Resistance	1,000MΩ (min) at 100VDC
Dielectric Strength	250V AC for 1 minute
Temp (operating)	-25°C to +70°C
Max Rotational Torque Required	500gf-cm
Operational Life	20,000 steps/min, switching
Vibration	Per MIL-STD-202F Method 204D
Solderability After flux	230 +/-5°C for 5 +/- 0.5 sec



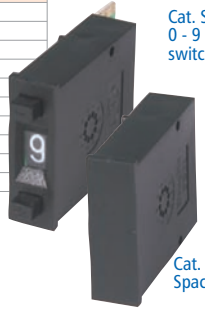
NEW LOWER PRICE

	Binary Coded Hex	Cat.	Qty 1+	Qty 10+	Qty 25+
	0 through F output	SR-1220	$3.95	$3.45	$3.15
	Binary Coded Decimal				
	0 through 9 output	SR-1222	$3.95	$3.45	$3.15

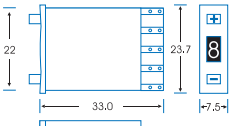
0 - 9 BCD Pushwheel

These pushwheel switches can be ganged together to make any combination and can be panel mounted using the optional pair of end caps (SR-1254). Switch positions (0 - 9) indicated via large numbers (white on black) and outputs are BCD encoded. Optional spacers (SR-1256) can be ganged together to provide spacing (7.62mm each) between the switches.

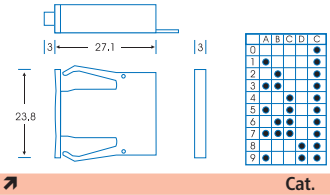
Specifications	
Rating	50VAC / 28V DC Max
Switching Current	100mA Max
Continuous Current	500mA Max
Contact resistance	200m ohms Max (initial)
Insulation resistance	100M ohms Min
Dielectric strength	500VAC 1 minute
Operating temperature	-20°C to +65°C
Ambient humidity	75% RH Max
Mechanical life	200,000 steps Min
Electrical life	100,000 steps Min



Cat. SR-1250
0 - 9 Pushwheel switch



Cat. SR-1256
Spacer

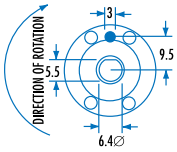


Cat. SR-1254
End caps to suit (pair)

		Cat.	Qty 1+	Qty 10+	Qty 25+
	Switch	SR-1250	$9.95	$8.75	$7.75
	Spacer	SR-1256	$2.45	$2.15	$1.95
	End caps	SR-1254 pair	$2.45	$2.15	$1.95

Sealed PCB Rotary Switches

These switches have a removable ring with tab which can be inserted into the switch several ways to your particular requirements. For example, if you purchased a 1 pole x 12 way (max) switch you could convert it to, say, 1 pole 7 way between stops. They have a standard 1/4" shaft. Panel hole 10mm. Contact rating 150mA at 240VAC. Cutout 9.5mm.



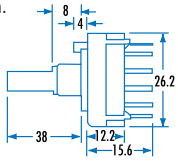
1 POLE
Configured from 1 pole 2 position through to 1 pole 12 position.

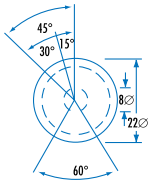
2 POLE
From 2 pole 2 position to 2 pole 6 position

3 POLE
From 3 pole 2 position to 3 pole 4 position

4 POLE
4 pole, 2 and 3 position

- Break before make





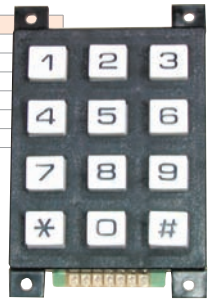
1 YEAR WARRANTY

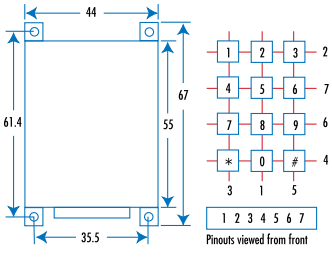
		Type	Cat.	Qty 1+	Qty 10+	Qty 25+
	240VAC 150mA	1 pole	SR-1210	$3.95	$3.45	$3.15
	240VAC 150mA	2 pole	SR-1212	$3.95	$3.45	$3.15
	240VAC 150mA	3 pole	SR-1214	$3.95	$3.45	$3.15
	240VAC 150mA	4 pole	SR-1216	$3.95	$3.45	$3.15

12 Key Numeric Keypad

This telephone style keypad has many uses.
It has 0-9, *, # - 3 x 4 way matrix.

Specifications	
Contact rating	20mA, 24VDC
Contact resistance	200Ω max
Life	1,000,000 cycles per key
Contact	Conductive rubber
Size (Key Face)	44(W) x 54(H) x 5(D)mm
Colour	White keys on black background

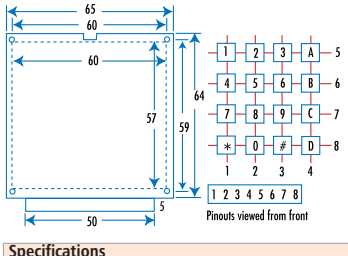




		Cat.	Qty 1+	Qty 10+	Qty 25+
	24VDC 20mA	SP-0770	$8.95	$7.95	$6.95

16 Key Alpha Numeric Keypad

0-9, *, #, A, B, C, D - 4 x 4 way matrix.



Specifications	
Contact rating	20mA, 24VDC
Contact resistance	200Ω max
Life	1,000,000 cycles per key
Contact	Conductive rubber
Size (Key Face)	65(W) x 59(H) x 7(D)mm
Colour	White keys on black background.

		Cat.	Qty 1+	Qty 10+	Qty 25+
	24VDC 20mA	SP-0772	$12.95	$11.35	$10.35

Security Switches

TAMPER SWITCHES

Alarm Tamper Style

This switch mounts behind a alarm module, bell or other item. If the device is tampered with or pulled from the wall, the alarm will be triggered. SPST. 18mm mounting hole.
Contacts close when button depressed.

	Cat.	Qty 1+	Qty 10+	Qty 25+
SPST	LA-5066	$2.95	$2.60	$2.30

Tamper (Pin) Style

Low cost spring loaded switch, simply make to frame (or earth) when pin is released i.e. by operating car or cabinet door, etc. 57mm overall, 12mm pin travel.
- Bullet connector termination

	Cat.	Qty 1+	Qty 4+	Qty 8+
Pkt 2	LE-8775	$5.95	$5.25	$4.75

Metal Tamper (Pin) Style

Especially good for car bonnets, this heavy duty pin switch is nickel plated for protection from corrosion in hostile environments. The plunger is plastic and can be cut to suit the required length/depth. Supplied with locking nuts and star washer. The bezel's mounting depth is also adjustable. Termination is via a 6.4mm spade lug.

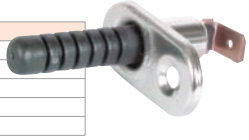
Length (main body):	38mm	Including plug & lug:	70mm
Shaft diameter:	7.75mm	Fascia nut size:	11mm
Locking nut size:	12mm	Travel (max):	13.5mm.

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pkt 2	LE-8776	$7.95	$6.95	$6.25

Metal Fascia Inset Pin Switch

Inset pin switch with plated metal fascia. Suitable for many cars as a replacement door switch. The sturdy plunger can be cut to required length. Termination via right angle 6.4mm spade lug.

Specifications	
Fascia	34.5 x 16.5mm
Pin	27(L) x 8(dia)mm
Depth behind fascia	15mm (not inc lug & pin)
Overall depth	51mm
Travel (max)	8mm



	Cat.	Qty 1+	Qty 2+	Qty 4+
Pkt 2	LE-8777	$7.95	$6.95	$6.25

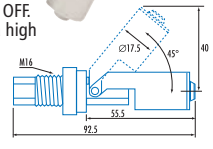
Van Sliding Door Style

Double action sliding door switch, primarily designed for van doors and tailgates. Supplied with rubber mounting plates, screws, template stickers and installation instructions.
Contacts are rated at a massive 20A @ 12V.

	Cat.	Qty 1+	Qty 2+	Qty 4+
12VDC 20A	LE-8779	$18.95	$16.95	$14.95

FLOAT SWITCHES

Float Switch



VERTICAL OR HORIZONTAL MOUNT NO or NC
Ideal for use in conjunction with solenoid valves, water pumps, etc., this float switch can be made NO or NC (Normally Open or Normally Closed) by the orientation of the float. Horizontally mounted so the float falls, when the fluid level rises it will switch ON at maximum float height. Mounting the switch so the float rises upwards when the fluid level rises above switch height it will switch OFF. Vertical mounting, with the float down, will switch OFF at a high fluid level. Widely used in marine, automobile, industrial, agricultural fluid level sensing applications.

- 560mm wire leads
- 92.5(L)x 18(D)mm x M16
- Float Rise height: 40mm from centreline

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SF-0920	$19.95	$17.70	$15.70

RELATED PRODUCT...
See our range of Flow Meters on page 32

Top Mounting Float Switch (Level Detector)

This unit can be fitted to the lid or top cover of a tank. Mounting is via an 8mm drill hole, a plastic locking nut & 'O' ring are supplied. Float movement is approx 20mm so an air gap between required 'full' level & top of tank can be accomodated if necessary. (The travel could be reduced, by relocating 'C' clip retainer.) The switch is rated at 200V 0.5A so it is not suitable to directly switch mains. When container is full the switch is open. Ideal for drinking water.

- 70(L)mm overall x 23(Dia.)mm (float)

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SF-0922	$17.95	$15.95	$14.35

Mini Mercury SPST

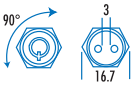
With a robust plastic housing, this switch has a mounting tab - you can screw it down - or use the self adhesive strip supplied. It has a 30cm lead. Switch contacts are open when the device is mounted horizontally.
Dimensions: 33 (L) x 8(W) x 8.5(D)mm

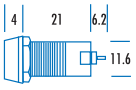
	Cat.	Qty 1+	Qty 10+	Qty 25+
SPST	SM-1044	$4.45	$3.95	$3.45

BARREL LOCKS

Barrel Key, Mini - SPST

Chrome plated SPST mini key switch features spring return momentary operation and is supplied with two mini barrel keys. Requires 28mm mounting depth and a panel cutout of 12mm.
Contact rating:
0.5A@250VAC
1A@125VAC

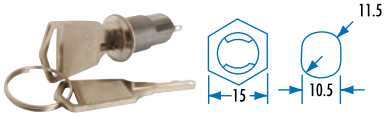


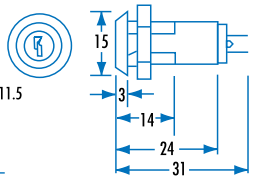


	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 500mA	SM-1034	$9.95	$8.75	$7.75

Standard Key, Mini - SPST

Rated at 3 amps. 2 keys supplied.
Panel cutout 12mm. Mounting depth 29mm.
Contact rating: 1A 125VAC / 0.5A @250VAC.

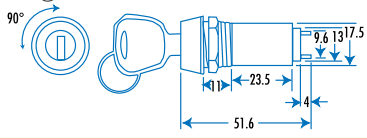


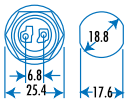


	Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 1A	SM-1027	$9.95	$8.75	$7.75

Standard Size - SPST

Solid barrel type. 19mm mounting hole.
SPST action.
Supplied with 2 (two) keys.
Rated @ 250V 2A.

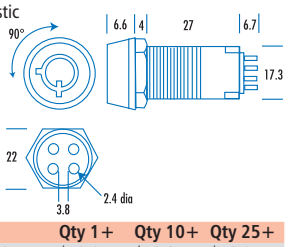




		Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 2A					
Random Keys		SM-1030	$12.95	$11.35	$10.35
Keyed Alike	Type A	SM-1029	$12.95	$11.35	$10.35
Keyed Alike	Type B	SM-1031	$12.95	$11.35	$10.35

DPST Change-Over Key Switch

This key switch uses tubular keys with black plastic inserts to easily identify them. It has 2 positions and the key is removable from both.
There are 4 connection terminals, and it is a change-over type - ie. connection DPST.
Contact rating is 2A, 250VAC.



	Cat.	Qty 1+	Qty 10+	Qty 25+
250VAC 2A	SM-1032	$13.95	$12.35	$10.95

NC Reed Switch*

Ideal for burglar alarms.

Coin not included for size purposes only

- Total length: 44mm
- Contact rating: 10W
- Switching current: 0.5A (max)
- Glass length: 14mm
- Switching voltage: 200VDC (max)
- Carrying current: 1.0A (max)

*Normally open, but closed when near magnet

	Cat.	Qty 1+	Qty 10+	Qty 25+
200VDC 500mA	SM-1002	$1.95	$1.75	$1.55

Mercury Switch SPST

Glass encapsulated

- 125VAC 3 amp AC. SPST.
- Size glass 18(L)mm x 5.5mm dia.

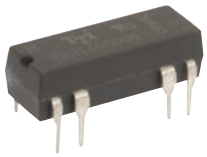
Coin not included for size purposes only

		Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC 3A	SPST	SM-1035	$2.75	$2.45	$2.15

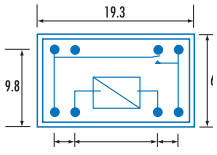
RELAYS

Dual-In-Line Reed Style Relays

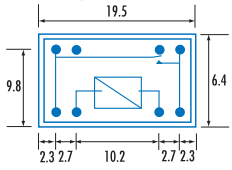
They will fit into a 14 pin IC socket, are highly sensitive and can be driven by TTL, etc. Both are SPST normally open.



SY-4030



SY-4032

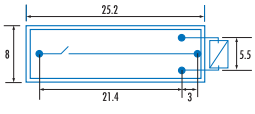


	SY-4030	SY-4032
Contact form	SPST normally open	SPST normally open
Coil Resistance	500Ω	1000Ω
Nominal Voltage	5V	12V
Rated Current	10mA	12mA
Pickup Voltage	3.75V DC	9.0V DC
Dropout Voltage	0.8V DC	1.0V DC
Allowable Voltage	160%	160%
Contact Rating	0.5A	0.5A

		Cat.	Qty 1+	Qty 10+	Qty 25+
5VDC	10mA	SY-4030	$4.75	$4.15	$3.75
12VDC	12mA	SY-4032	$4.75	$4.15	$3.75

ECONOMY STYLE

	SY-4036	SY-4038
Contact form	SPST normally open	SPST normally open
Coil Resistance	500Ω	1050Ω
Nominal Voltage	5V	12V
Rated Current	20mA	11.4mA
Pickup Voltage	3.5V DC	8.4V DC
Dropout Voltage	0.5V DC	1.2V DC
Allowable Voltage	160%	160%
Power Consumption (W)	0.1	0.1
Contact Rating	1A	1A



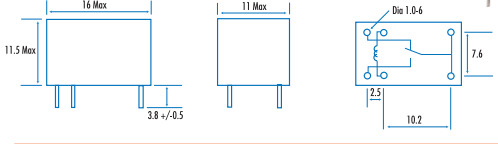
		Cat.	Qty 1+	Qty 10+	Qty 25+
5VDC	20mA	SY-4036	$3.95	$3.45	$3.15
12VDC	11.4mA	SY-4038	$3.95	$3.45	$3.15

STANDARD COIL / CONTACT RELAYS

DIL Type - 6V - Mini

Extra low profile. 6V DC bobbin
56 ohm coil resistance
1A / 125VAC
PCB mount

1A contact rating.
SPDT.
Size 15 x 11 x 11(H)mm

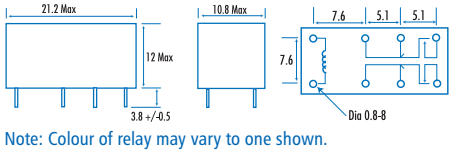


		Cat.	Qty 1+	Qty 10+	Qty 25+
125VAC	1A	SY-4058	$7.95	$6.95	$6.25

DIL Type - 12V - Mini

12 volt DPDT relay.
12V DC coil.
Max switching power 60W
Size 20 x 10 x 9(H) mm

High sensitivity 200mW pickup power
Coil resistance 360Ω.
125VA.
PCB mount



Note: Colour of relay may vary to one shown.

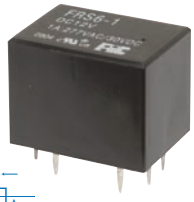
	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC	SY-4059	$9.95	$8.75	$7.75

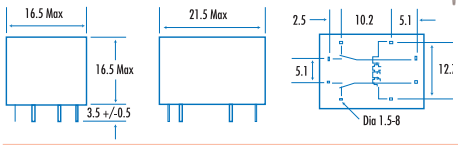
MINI RELAYS, PCB TYPE

1A DPDT

Rated voltage - 12VDC
Coil resistance - 400Ω
Size - 21(W) x 16(D) x 15(H)mm.

Coil current - 30mA
Contact rating - 1 Amp



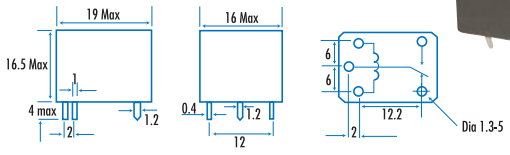


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 1A	SY-4061	$4.95	$4.45	$3.90

3A SPDT

Rated voltage - 12VDC
Coil resistance - 400Ω
Size - 18(W) x 15(D) x 14(H)mm

Coil current - 30mA
Contact rating - 3 Amp
NO/NC contacts.

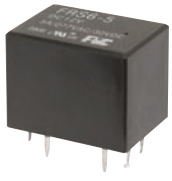


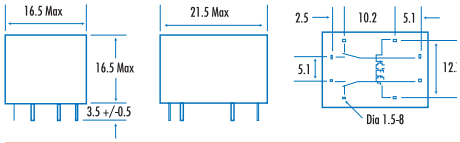
	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 3A	SY-4066	$4.45	$3.95	$3.45

5A DPDT

Extra heavy duty mini relay
Coil current - 30mA
Contact rating - 5 Amp
Size - 21(W) x 16(D) x 15(H)mm

Rated voltage - 12VDC
Coil resistance - 400Ω
Power consumption - 360mW
NO/NC contacts.



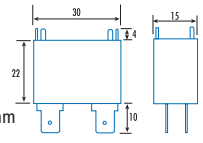


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 5A	SY-4062	$5.95	$5.25	$4.75

20A12V SPST PCB Mount Relay

PCB mounting 12V relay with QC lug terminals mounted conveniently on top of case. What a good idea!

Coil voltage	12VDC
Coil current	44mA
Coil resistance	275 ohms
Contacts	SPST
Contact current	20A@24VDC max
Size	30(L)x22(W)x15(H)mm

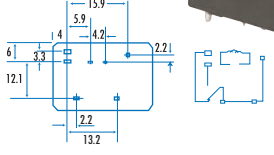


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 20A	SY-4029	$8.95	$7.95	$6.95

30A SPDT - Standard Size (Horn Relay)

PCB version of standard 30A horn type relay. Whilst designed for auto horns, this relay is ideal for any high current application i.e. burglar alarms, ignition cutout, transmitters, car spotlights etc.

- Contact current (max) 40A
- Contact voltage (nom) 12VDC
- Nominal coil voltage 12VDC
- PC Pin termination



	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 30A	SY-4072	$7.45	$6.50	$5.75

Relays

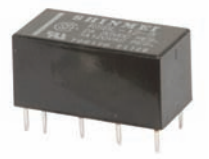
MINI RELAYS, PCB TYPE (CONTINUED)

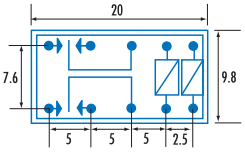
12VDC DPDT Latching

DIP style - will plug into 16 pin IC socket. Low profile. Highly sensitive - 180mW nominal power consumption.

Specifications Coil
2 coil latching - 12VDC
Minimum set and reset power 180mW
Nominal set and reset power 360mW

Specifications Contact
Max switching power 60W, 125VA
Max switching voltage 220VDC, 250VAC
Max carrying current
2A @ 30VDC, 1A @ 120VAC
Size 20(W) x 10(D) x 10(H)mm.





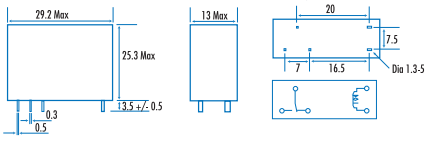
	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC	SY-4060	$12.95	$11.35	$10.35

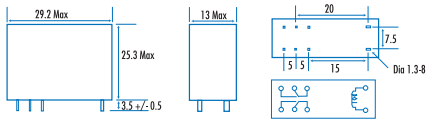
Special PC Mount

Silver alloy contacts
- Telecoms grade

SPDT - 12VDC
- 12V DC.
- Coil 285 ohms.
- 10A @ 30VDC or 10A @ 240VAC contact rating.

DPDT - 12/24VDC
- Coil 285 ohms - 12VDC
- Coil 1100 ohms - 24VDC
- 2 x 5A @ 30VDC or 2 x 5A@240VAC contact rating.
- 29(W)x12(D)x25(H)mm





		Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC	SPDT	SY-4050	$7.95	$6.95	$6.25
12VDC	DPDT	SY-4052	$8.95	$7.95	$6.95
24VDC	DPDT	SY-4053	$9.95	$8.75	$7.75

DIN Rail Relay Mounting Socket

Suits relay types SY-4052 and SY-4053

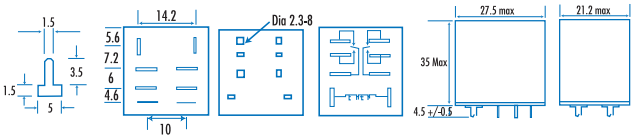
	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4063	$4.95	$4.45	$3.90

CRADLE RELAYS

Cradle Relay - DPDT

DIN mount cradle relays.
Available in 12V or 24DC configuration.

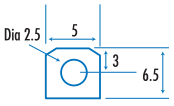
Base to suit: SY-4064.
SY-4007 DPDT Relay 24VDC 10A, Rated coil voltage: 24VDC, Coil current: 58mA
Contact rating: 10A (resistive load),
Contact resistance: 50 milliohms
Operate time: 25ms max,
Must operate voltage: 19.2VDC
Operational life: 20 million cycles,
Coil resistance: 650Ω (SY-4007), 160Ω (SY-4008)

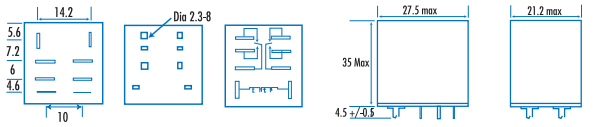


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 10A	SY-4008	$7.95	$6.95	$6.25
24VDC 10A	SY-4007	$7.95	$6.95	$6.25

Cradle Relay - DPDT

For heavy current switching for mains appliances eg. high power speakers.
- Contact rated at 10A 240VAC.
- NO/NC contacts.
- Coil 12VDC 160 ohms.
- DPDT contacts.
- Suitable base: Use SY-4064 cradle
- Dimensions: 27(W) x 20(D) x 35(H)mm.

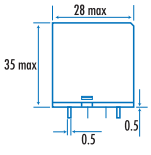


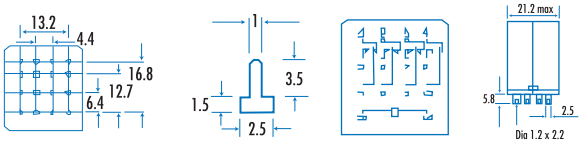


	Cat.	Qty 1+	Qty 10+	Qty 25+
240VAC 10A	SY-4065	$7.95	$6.95	$6.25

Cradle Relay - 4PDT

- Rated Voltage: 12VDC
- Coil Resistance: 180Ω
- Contact Rating: 5A NO/NC contacts
- 27(W) x 21(D) x 35(H) excl pins.



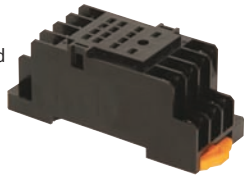


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 5A	SY-4009	$9.95	$8.75	$7.75

DIN Rail Mount Relay Socket

DIN rail mounting base for SY-4009.
Also has 4mm holes so can be screw mounted to a chassis.

- Dimensions: 71(L) x 29(W) x 30(H)mm

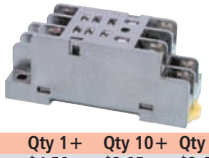


	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4004	$5.50	$4.90	$4.30

Cradle Relay Base

Quality DIN rail mount with screw terminals.

- Suits SY-4065
- Dimensions: 72(W) x 29(D) x 30(H)mm.



	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4064	$4.50	$3.95	$3.60

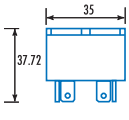
PANEL/CHASSIS MOUNT RELAYS

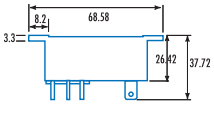
All feature rugged construction and quick connect terminals for easy installation.

24VDC OR 240VAC, DPDT, 30A

Two models available.
One with a nominal 240VAC coil and one with 24VDC coil.

- Contact Form: DPDT
- Contact Rating: 30A
- 24V Model Coil Resistance: 350 ohm
- 240V Model Coil Resistance: 3800 ohm@50Hz

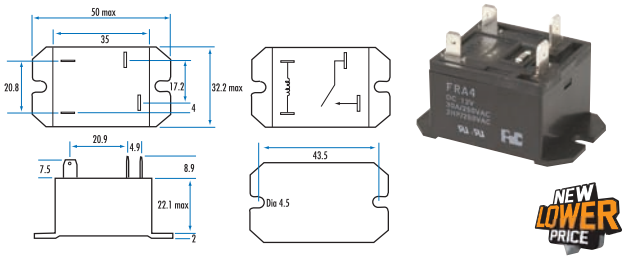




	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
	24VDC	30A	SY-4041	$14.95	$13.35	$11.70
	240VAC	30A	SY-4044	$16.95	$14.95	$13.35

12VDC, SPST 30A

- Contact Voltage (nom): 12VDC
- QC tab termination - 4.8mm coil, 6.4mm contacts
- 30A
- Used in heavy duty applications like air conditioning, heating etc.
- Coil: 12V, 120 ohm
- Loads up to 7,500W,
- High inrush capability: 65A, 10,000V



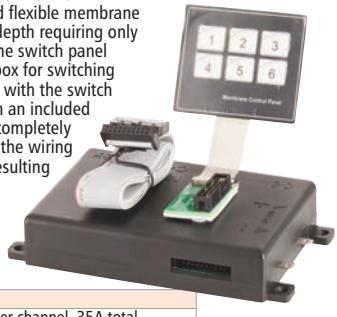
Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC	30A	SY-4040	$6.95	$6.25	$5.50

AUTOMOTIVE RELAYS

6 Way Membrane Switch Panel with Relay Box - IP67

NEW 2013

An ultra compact 6-way 12VDC touch control panel to control devices in automotive, camping, or marine applications. It features an ultra thin and flexible membrane switch panel with almost no mounting depth requiring only a very small cut-out. The 6 buttons on the switch panel control 6 relays in the separate control box for switching on/off any connected devices with ease, with the switch panel connecting to the control box with an included 1m long ribbon cable. This gives you a completely waterproof (IP67) switch panel, with all the wiring taken care of behind your dash/panel, resulting in a neat and unobtrusive 6-way switch interface.



- IP67 rating on the switch panel
- Built-in resettable fuses

Specifications	
Max current	10A per channel, 35A total
Touch Panel Dimensions	70(L) x 63(W) x 1(H)mm
Membrane Control Box Dimensions	135(L) x 90W) x 33(H)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SP-0900	$99.95	$89.95	$79.95

Micro 30A Horn Relays

Extremely compact with a footprint of only 22 x 15mm, but maintaining high contact currents for automotive applications. Ideal for air horns, fog lamps or driving light installations. 30A rating on NO contacts, 20A on NC for both 12V and 24V types.

SPST 30A HORN RELAY 12V Cat SY-4045
SPDT 30A HORN RELAY 12V Cat SY-4046
SPDT 30A HORN RELAY 24V Cat SY-4047

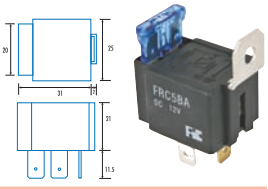
NOT JUST FOR HORNS OF COURSE

	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 30A SPST	SY-4045	$6.50	$5.75	$4.95
12VDC 30A SPDT	SY-4046	$6.50	$5.75	$4.95
24VDC 30A SPDT	SY-4047	$6.50	$5.75	$4.95

Automotive Fused Relays - 15/30A

Designed for automotive applications, these quality relays have an integrated blade fuse (fuse included) and metal mounting bracket. SY-4076 - 15A, ideal for aftermarket horns etc. SY-4077 - 30A, suits high current accessories like fog lights, driving lights etc.

- QC tab termination 6.8mm (PT-4507)



	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 15A SPST	SY-4076	$8.95	$7.95	$6.95
12VDC 30A SPST	SY-4077	$9.95	$8.75	$7.75

Automotive Horn Relay - 30A

Whilst designed for auto horns, this relay is ideal for any high current application. i.e. alarms, ignition cutout, transmitters, car spotlights etc. Contact voltage (nom) 12VDC. Nominal coil voltage 12VDC. QC tab termination

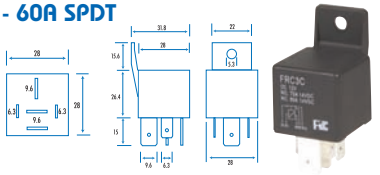
Also see our PCB mount version Cat. SY-4072 shown on previous page.

30A SPDT shown

	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 30A-SPST	SY-4068	$5.95	$5.25	$4.75
12VDC 30A-SPDT	SY-4070	$5.95	$5.25	$4.75

Automotive Horn Relay - 60A SPDT

- Contact voltage (nom) 12VDC
- Nominal coil voltage 12VDC.
- QC tab termination • SPDT
- Heavy duty quick connectors required for 60A terminals use PT-4717 Pkt. 4

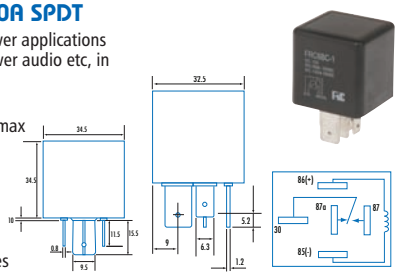


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 60A Relay	SY-4074	$8.95	$7.95	$6.95

Automotive Relay - 150A SPDT

150A contacts for ultra high power applications such as multiple lights, high power audio etc, in a small package.

- Contacts: SPDT
- Contact resistance: 30m ohm max
- Contact rating: 150A
- Coil voltage: 12VDC
- Coil resistance: 50 ohms
- Rated coil current: 240mA
- Operate time: 10ms
- Release time: 5ms
- Operational life: 100,000 cycles

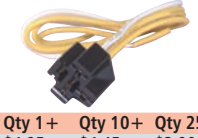


	Cat.	Qty 1+	Qty 10+	Qty 25+
12VDC 240mA	SY-4073	$14.95	$13.35	$11.70

Automotive Relay Base to suit above Horn Relays

This is a plug in base with cable attached.

- Suits SY-4068 & SY-4070

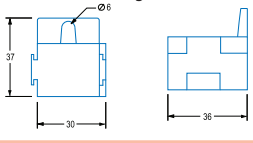


	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4069	$4.95	$4.45	$3.90

Interlocking Relay Socket with Leads

The easy and neat way to add multiple relays to your electrical system. These relay bases interlock together, can be panel mounted and take standard 5 pin automotive relays. They also come with integral flying leads as well as bare crimp terminals for customised termination.

- Leads 150mm long



	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4078	$8.50	$7.50	$6.75

FLASHER RELAYS

Universal 2-Pin LED Flasher Relays

Specifically designed to work with replacement low current LED indicator lights which may "hyper flash" when used with your cars standard flasher relay. This high frequency flashing will burn out the globe quicker. The minimum load is negligible (0.02A). Some cars will even display a burnt out bulb indicator even though it's working fine, this unit will remedy that issue.

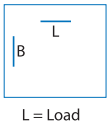
- Nominal voltage: 12VDC
- Operating voltage: 11VDC-15VDC
- Flashing frequency: 90 times/minute +/-10%
- Silent operation
- Specifications: 40(H) x 28(W) x 28(L)mm

NEW 2013

UNIVERSAL 2-PIN LED FLASHER RELAY
Switch current: 0.02A-10A
SY-4016

JAPANESE CAR 3-PIN LED FLASHER RELAY
Switch current: 0.02A-20A
SY-4018

1 YEAR WARRANTY



L = Load
B = 12V in

Current	Cat.	Qty 1+	Qty 4+	Qty 10+
10A	SY-4016	$14.95	$13.35	$11.70
20A	SY-4018	$14.95	$13.35	$11.70

Relays

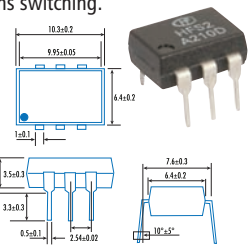
SOLID STATE RELAYS

Solid state relays are particularly useful when only low switching currents are available, such as those presented by CMOS or TTL circuits. Optically isolated for optimum safety, the relays feature high surge ratings to allow lamp and motor switching plus zero voltage turn-on and zero current turn off to minimise EMI and RFI emissions. Use this relay in conjunction with our remote control switches for safe 240V AC mains switching.

PCB Mount Solid State DIL Relay

Able to be triggered from low currents, and a super small package. Low on resistance and very low quiescent current.

Specifications	
Must release current	0.4mA
Must operate current	5mA
Maximum load voltage	60VDC
Maximum load current	150mA
Package	6 pin DIL



	Cat.	Qty 1+	Qty 10+	Qty 25+
	SY-4090	$4.95	$4.45	$3.90

PCB Mount Solid State Relays, Low Current

Low profile PCB mounting solid state relays with LED input status indication. Suitable for applications such as I/O interfaces and programmable logic controllers.
Four types available:

SY-4092: 5VDC, DC POWER

Specifications	
Control voltage range	4 - 6VDC
Max. input current	20mA
Load voltage	3 - 52.8VDC
Load current	0.01 - 2A

Will only switch off if DC power interrupted

SY-4093: 12VDC, DC POWER

Specifications	
Control voltage range	9.6 - 14.4VDC
Max. input current	20mA
Load voltage	3 - 125VDC
Load current	0.01 - 2A

Will only switch off if DC power interrupted

SY-4096: 12VDC ZERO CROSSING TURN ON AC OPERATION

Type: Zero crossing turn on, solid state relay. The relay will only turn on when the line (output) voltage is near zero. Suitable for resistive loads.

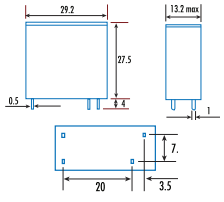
Specifications	
Control voltage range	9.6 - 14.4VDC
Load voltage	75 - 400VAC
Load current	0.1 - 3A

TECH TIP!
SY-4096 & SY-4097 will switch off if control voltage is removed when AC power source crosses through zero

SY-4097: 12VDC RANDOM TURN ON

Type: Random turn on, solid state relay. When the control voltage is given the relay output will turn on regardless of what the line voltage is. Suitable for inductive loads.

Specifications	
Control voltage range	9.6 - 14.4VDC
Load voltage	75 - 400VAC
Load current	0.1 - 3A



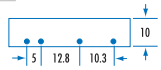
	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
	5VDC	2A	SY-4092	$4.95	$4.45	$3.90
	12VDC	2A	SY-4093	$4.95	$4.45	$3.90
	12VDC	3A	SY-4096	$5.95	$5.25	$4.75
	12VDC	3A	SY-4097	$5.95	$5.25	$4.75

SY-4080: Mains Type

Solid state relays are particularly useful when only low switching currents are available, such as those presented by CMOS or TTL circuits. Optically isolated for optimum safety, the relays feature high surge ratings to allow lamp and motor switching plus zero voltage turn-on and zero current turn off to minimise EMI and RFI emissions. Use this relay in conjunction with our remote control switches for safe 240V AC mains switching.

Specifications - Output Circuit	
Max load current	3A
Nominal line voltage	240V AC
Load voltage range	24-280V AC
Min. blocking voltage	600V AC
Max one-cycle surge current	80A
Min. load current	50mA
AC current	3A max

Specifications - Input Circuit	
Control voltage	3-32V DC
Control current	15mA Max
Min. turn off voltage	1V DC
Input resistance	2.2kΩ min



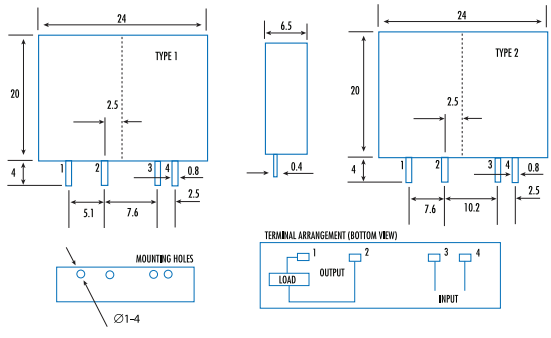
Not for controlling DC

	Cat.	Qty 1+	Qty 10+	Qty 25+
3-32VDC 3A	SY-4080	$14.95	$13.35	$11.70

Slim 5V, 12V

- Ultra slim
- 2A switching
- Photo isolation
- 600V blocking voltage
- Sealed type

Specifications	5VDC (SY-4088)	12VDC (SY-4089)
Dielectric strength	20000VAC (1 minute)	20000VAC (1 minute)
Insulation Resistance	100MΩ (at 500VDC)	100MΩ (at 500VDC)
Operating temperature	-30°C to +80°C	-30°C to +80°C
Input Ratings		
Control Voltage	4-6 VDC	9.6 - 14.4 VDC
Maximum Current	15mA	15mA
Voltage On	4V	4V
Current Off	1V	1V
Output Ratings		
Voltage (AC Power)	50 - 250VAC	50 - 250VAC
Maximum Current	2A	2A
Surge Current	30A	30A



	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
	5VDC	2A	SY-4088	$6.95	$6.25	$5.50
	12VDC	2A	SY-4089	$6.95	$6.25	$5.50

Chassis Mount Solid State Relays, High Current

Both look similar but are in fact quite different

SY-4084 40A, 240VAC TRIAC TYPE

This unit has a dielectrically isolated D.C. control input that controls a 40amp TRIAC. This means that you can control AC mains up to 40A RMS. It also means that it will not control D.C.. For that you need the SY-4086 at right.

Specifications for SY-4084
- Dielectric isolation rating 4000VAC
- Opto isolated control, 4V min, 32V max (D.C.)
- Built-in snubber
- TRIAC controlled AC out. 48-280VAC.
- RoHS compliant.

HEATSINK TO SUIT SY4084/SY4086

Using this heat sink with the SY-4084/SY-4086 solid state relays assures you reach the full current capacity. Solid state relays become quite hot when used in a high current application, so suitable heat sinking is essential. Datasheet available on our website.

- Thermal resistance - 1.1°C/W
- Dimensions - 118(W) x 110(L) x 64(H)mm

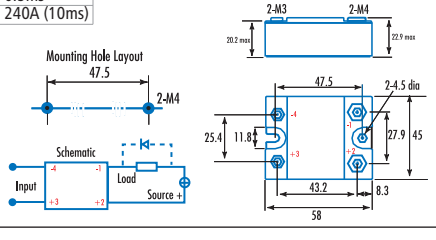
SY-4086 100A, 0-30VDC MOSFET TYPE

This unit has a dielectrically isolated D.C. control input to switch a MOSFET which can control loads of up to 100A @ 30VDC. It will not switch AC. To switch AC use the SY-4084. NB: Mechanical details same for both units

Advantages of SY-4086. Switching high current D.C. was previously accomplished by high current contactors. Contactors, however, wear out quickly as they are plagued by arcing of the actual contacts. There is no arcing with MOSFETS and their very low ON-resistance (in this case 3.5 milli Ω) ensures little wasted energy.

Specifications - Output Circuit	
Load Voltage	0-30VDC
Load Current	0.02-100A
Max On-State Resistance	0.0035Ω
Max On-State Voltage Drop	0.35V
Max Turn On Time	0.5ms
Max Turn Off Time	0.5ms
Max Surge Current	240A (10ms)

Specifications - Input Circuit	
Control Voltage	3-32VDC
Control Current	28mA max.
Min Turn Off Voltage	1.0VDC



	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
	240VAC (ONLY)	40A	SY-4084	$47.95	$42.95	$38.45
	30VDC	100A	SY-4086	$47.95	$42.95	$38.45
	Heatsink to suit		SY-4085	$9.95	$8.75	$7.75

DECIBELS

Contrary to much popular usage, the decibel (dB) is not actually a unit of any particular quantity, but rather an expression of the ratio between two quantities, such as, power, voltage, current, acoustic pressure.

Many sensors, including our own ears, respond to stimuli in a logarithmic fashion, that is, an increase of 10dB Results in a doubling of loudness. This allows a huge range of intensities. As the dB compares the logarithmic quantities, it agrees with our perceptive comparisons.

To calculate the ratio, in dB, of two power levels, P1 and P2, the formula is:

dB = 10 log (P1/P2)

If the quantities are voltages, currents or sound pressure levels, X1 and X2, the formula becomes:

dB = 20 log (X1/X2)

If the quantities X1 and X2 are both measured in the same impedances, their dB ratio will be numerically equal to the dB ratio of their equivalent powers. If their impedances Z1 and Z2 are unequal, the dB ratio of their power can be found from:

dB = 20 log (X1/X2) + 10 log (Z2/Z1)

Negative dB ratios will result when P1 (or X1) is less than P2 (or X2), while positive values indicate that P1 (or X1) is greater than P2 (or X2).

BUZZERS

PC Mount Mini PC Piezo

Ideal when you need to fit an alarm in a small place. It has its own built-in drive circuit. It offers low current consumption and it's sealed for DIP soldering & washing.

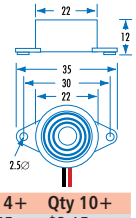
Specifications	
Operation voltage:	9 - 14V
Rated voltage:	12VDC
Current:	30mA
SPL:	85dBA/10cm
Frequency:	2.3kHz
Operating Temp:	-20° to +65°C
Weight:	2.4 gram
Dimensions:	9.5(H) x 12 dia
Pin Spacing:	7.6mm.

Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3459	$4.95	$4.45	$3.90

Piezo Buzzer - Mini

It offers medium to loud sound output, low current consumption and is extremely durable. Supplied with fly leads.

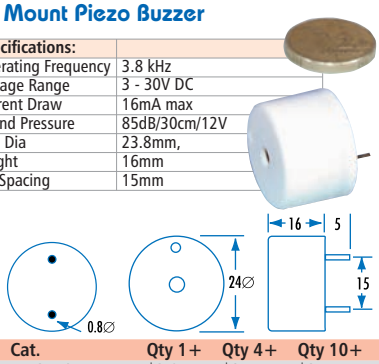
Specifications:	
Operating voltage:	3-16VDC
Rated:	12VDC
Freq:	3.3kHz
Max current at 12V:	15mA
Max sound output:	90dB
Dia:	22mm
Height:	12mm



Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3462	$3.95	$3.45	$3.15

PC Mount Piezo Buzzer

Specifications:	
Operating Frequency	3.8 kHz
Voltage Range	3 - 30V DC
Current Draw	16mA max
Sound Pressure	85dB/30cm/12V
Size Dia	23.8mm,
Height	16mm
Pin Spacing	15mm

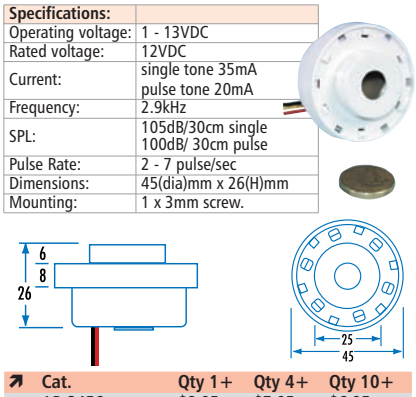


Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3458	$3.95	$3.45	$3.15

Dual Sound Piezo Industrial Type

Similar to SONALERT® earpiercing sound. Non inductive, operates from 1 - 13V DC. Now with both continuous tone and pulsed tone. Red & black for continuous, yellow and black for pulse tone.
Ideal for almost all signalling applications.

Specifications:	
Operating voltage:	1 - 13VDC
Rated voltage:	12VDC
Current:	single tone 35mA pulse tone 20mA
Frequency:	2.9kHz
SPL:	105dB/30cm single 100dB/ 30cm pulse
Pulse Rate:	2 - 7 pulse/sec
Dimensions:	45(dia)mm x 26(H)mm
Mounting:	1 x 3mm screw.



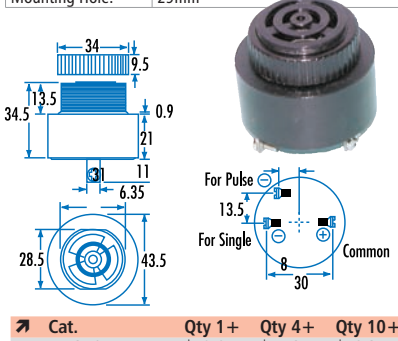
Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3456	$8.95	$7.95	$6.95

Piezo Reversing Alarm Automotive Type

Available with both continuous and pulse tone. These are a heavy duty panel mounted piezo. They are very rigidly made and terminals are via screw down or 6.35mm quick disconnect.

- Similar to SONALERT®

Specifications:	
Operating voltage:	4 - 16V
Rated voltage:	12V
Max Current @ 12V:	25 single, 20 pulse mA
Frequency:	2.9kHz
SPL @ 12V:	95 single, 90 pulse dB
Pulse Rate @ 12V:	0.8 - 1.2 pulse/sec
Dimensions:	43.5(dia) x 34.5 (H)mm
Mounting Hole:	29mm

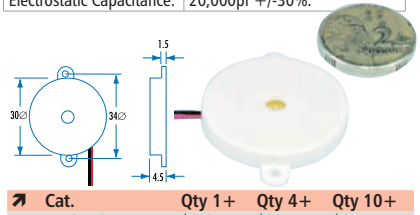


Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3464	$12.95	$11.35	$10.35

Low Profile Piezo Transducer

This electro-acoustic transducer contains no electronics but will transform AC voltages to sound pressure waves. It will also generate an AC voltage across its terminals when stimulated with a sound pressure wave.

Specifications:	
Dimensions:	30mm diameter
Height:	5mm
Max. Input voltage:	30V pp
SPL:	105dB/30cm pulse
Resonant frequency:	4,200 +/-500Hz
Resonant Resistance:	300 ohm max.
Electrostatic Capacitance:	20,000pf +/-30%.



Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3440	$3.95	$3.45	$3.15

Weatherproof Buzzer 6-14VDC

Designed to withstand exposure to rain when mounted outdoors.

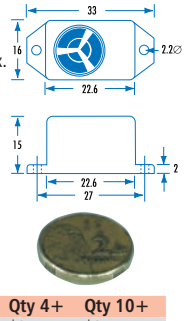
Specifications:	
Operating Voltage	6-14VDC
Rated Voltage	12VDC
Current	35mA @ 12V (max)
SPL	85dB / 1m
Frequency	2.8kHz 500Hz
Material	ABS UL-94 1/16" HB High Heat
Dia	26mm
Holes	32mm
Height	16mm

Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3466	$16.95	$14.95	$13.35

Surface Mount Buzzer

This handy little solid state buzzer operates between 5-15VDC.
Used in many applications

- Current consumption 40mA max.
- Sound level: 79dB/1mt.
- 31(W) x 17(D) x 15(H)mm.
- Note: This is an electromechanical buzzer



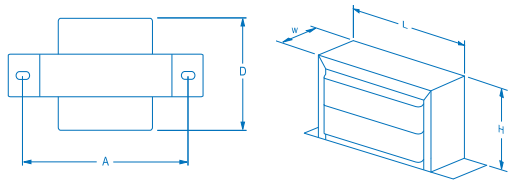
Cat.	Qty 1+	Qty 4+	Qty 10+
AB-3452	$3.95	$3.45	$3.15

Want it fast? How about next day delivery? See page 4 for details.

Transformers

QUICK REFERENCE TRANSFORMER SELECTION

Our range of transformers have not changed much over the years. We have three major categories Power EI Core, Power PCB Mount and Power Toroidals. This year we have added comparison tables for each of these ranges, with key technical specifications for easy reference and selection.



Power EI Core

		Primary		Secondary				Connection		Dimensions (mm)					Weight	Cat No.	Page No.
Type	VA	Voltage (V)	Internal Thermal Fuse	Voltage (V)	Current (mA, A)	Winding	Regulation (%)	Primary	Secondary	A	D	L	W	H	(kg)		
2840	1.35	240	Yes	9, 4.5	150mA	Centre Tapped	9	Fly Leads	Fly Leads	45	32	37	16	32	0.120	MM-2017	168
2854	3.6	240	Yes	24, 12	150mA	Centre Tapped	12	Fly Leads	Fly Leads	53	41	43	22	36	0.230	MM-2018	168
2851	1.9	240	Yes	12.6, 6.3	150mA	Centre Tapped	8	Fly Leads	Fly Leads	46	32	37	16	32	0.112	MM-2006	169
2855	4.5	240	Yes	30, 15	150mA	Centre Tapped	8	Fly Leads	Fly Leads	53	44	43	28	36	0.280	MM-2007	169
2853	7	240	Yes	12.6, 6.3	500mA	Centre Tapped	10	Fly Leads	Fly Leads	61	38	51	20	43	0.310	MM-2013	169
2155	15	240	Yes	15, 12.6, 9.5, 8.5, 7.5, 6.3	1A	Multi-Tapped	10	Fly Leads	Solder Lugs	72	52	59	32	51	0.665	MM-2002	169
6672	30	240	Yes	30, 27.5, 24, 20, 17.5, 15	1A	Multi-Tapped	11	Fly Leads	Solder Lugs	85	62	69	35	59	0.924	MM-2008	169
2165	60	240	Yes	30, 24, 21, 18, 15, 12, 9	2A	Multi-Tapped	8	Fly Leads	Solder Lugs	85	65	69	35	59	0.995	MM-2005	169
2154	18	240	Yes	18, 15, 12	1A	Multi-Tapped	8	Fly Leads	Solder Lugs	72	56	59	32	51	0.650	MM-2011	170
2167L	60	240	Yes	12, 9 (x2)	2.5A (x2)	Multi-Tapped/Dual	10	Fly Leads	Solder Lugs	82	76	69	48	59	1.30	MM-2014	170
2156	30	240	Yes	15, 12, 9, 6	2A	Multi-Tapped	10	Fly Leads	Solder Lugs	82	60	69	35	59	0.92	MM-2004	170
2158	72	240	Yes	24	3A	Single	9	Fly Leads	Fly Leads	82	76	69	48	59	1.30	MM-2012	170
2170	100	240	Yes	15, 12 (x2)	3A (x2)	Multi-Tapped/Dual	7	Fly Leads	Solder Lugs	91	76	80	44	68	1.60	MM-2015	170

Note: All EI Core Transformer Fly Leads 200mm

Power PCB Mount

	Primary		Secondary				PCB Layout		Dimensions (mm)			Weight	Cat No.	Page No.
VA	Voltage (V)	Internal Thermal Fuse	Voltage (V)	Current (mA, A)	Winding	Regulation (%)	Pin Config.	Pin Spacing (mm)	L	W	H	(kg)		
10	240	Yes	5 plus 12	1A plus 400mA	Dual	11	2 x 6	5 x 27.5	37	48	41	0.254	MF-1202	171
10	240	Yes	12 (x2)	420mA (x2)	Dual	11	2 x 6	5 x 27.5	37	48	41	0.254	MF-1212	171

Power Toroidals

	Primary		Secondary				Connection		Dimensions (mm)			Weight	Cat No.	Page No.
VA	Voltage (V)	Internal Thermal Fuse	Voltage (V)	Current (mA, A)	Winding	Regulation (%)	Primary	Secondary	OD	ID	H	(kg)		
20	240	Yes	9 (x2)	1.11A (x2)	Dual	14	Fly Leads	Fly Leads	75	27	32	0.51	MT-2082	171
20	240	Yes	12 (x2)	0.83A (x2)	Dual	14	Fly Leads	Fly Leads	75	27	32	0.51	MT-2084	171
20	240	Yes	15 (x2)	0.66A (x2)	Dual	14	Fly Leads	Fly Leads	75	27	32	0.51	MT-2086	171
160	240	Yes	12 (x2)	6.66A (x2)	Dual	9	Fly Leads	Fly Leads	110	34	44	1.80	MT-2112	171
160	240	Yes	18 (x2)	4.44A (x2)	Dual	9	Fly Leads	Fly Leads	110	34	44	1.80	MT-2113	171
160	240	Yes	25 (x2)	3.2A (x2)	Dual	9	Fly Leads	Fly Leads	110	34	44	1.80	MT-2114	171
300	240	Yes	12 (x2)	12.5A (x2)	Dual	8	Fly Leads	Fly Leads	125	43	57	2.85	MT-2130	171
300	240	Yes	18 (x2)	8.33A (x2)	Dual	8	Fly Leads	Fly Leads	125	43	57	2.85	MT-2132	171
300	240	Yes	40 (x2)	3.75A (x2)	Dual	8	Fly Leads	Fly Leads	125	43	57	2.85	MT-2140	171
300	240	Yes	50 (x2)	3A (x2)	Dual	8	Fly Leads	Fly Leads	125	43	57	2.85	MT-2144	171
500	240	Yes	50 (x2)	5A (x2)	Dual	8	Fly Leads	Fly Leads	134	38	66	4.24	MT-2146	171

Note 1: All Toroidal Transformer Fly Leads 150mm.
Note 2: The secondary windings can be connected in parallel to obtain twice the output current. The windings must be connected in phase.

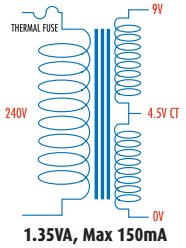
TRANSFORMERS

SOANAR

9V, 1.35VA, 150mA Centre Tapped

TYPE 2840

Specifications			
Type	2840	Temp rise above ambient at rated power	60°C
Secondary winding (s)	Centre Tapped	Regulation	9%
Primary voltage	240VAC	Weight	120g
Total VA rating	1.35VA	Primary connection	200mm Fly leads
Secondary voltages	9V, 4.5V (CT)	Secondary connection	200mm Fly leads
Secondary current (max)	150mA	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	30mA	Dimensions (mm)	A45 D32 L37 W16 H32



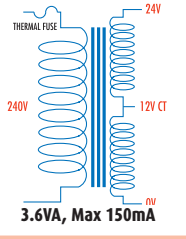
1.35VA, Max 150mA

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MM-2017	$7.95	$6.95	$6.25

24V, 3.6VA, 150mA Centre Tapped

TYPE 2854

Specifications			
Type	2854	Temp rise above ambient at rated power	65°C
Secondary winding (s)	Centre Tapped	Regulation	12%
Primary voltage	240VAC	Weight	230g
Total VA rating	3.6VA	Primary connection	200mm Fly leads
Secondary voltages	24V, 12V (CT)	Secondary connection	200mm Fly leads
Secondary current (max)	150mA	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	40mA	Dimensions (mm)	A53 D41 L43 W22 H36



3.6VA, Max 150mA

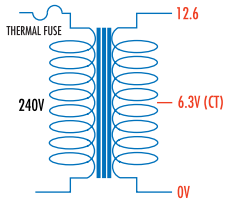
	Cat.	Qty 1+	Qty 2+	Qty 4+
	MM-2018	$8.95	$7.95	$6.95

This colour pricebar denotes a Clearance item - check for specials.

12.6V CT, 1.9VA, 150mA Centre Tapped

TYPE 2851

Specifications			
Type	2851	Temp rise above ambient at rated power	40°C
Secondary winding (s)	Centre Tapped	Regulation	8%
Primary voltage	240VAC	Weight	112g
Total VA rating	1.9VA	Primary connection	200mm Fly leads
Secondary voltages	12.6V, 6.3V(CT)	Secondary connection	200mm Fly leads
Secondary current (max)	150mA	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	15mA	Dimensions (mm)	A46 D32 L37 W16 H32



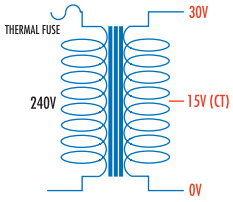
1.9VA, Max 150mA

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2006	$7.95	$6.95	$6.25

30V CT, 4.5VA, 150mA Centre Tapped

TYPE 2855

Specifications			
Type	2855	Temp rise above ambient at rated power	40°C
Secondary winding (s)	Centre Tapped	Regulation	8%
Primary voltage	240VAC	Weight	280g
Total VA rating	4.5VA	Primary connection	200mm Fly leads
Secondary voltages	30V, 15V(CT)	Secondary connection	200mm Fly leads
Secondary current (max)	150mA	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	40mA	Dimensions (mm)	A53 D44 L43 W28 H36



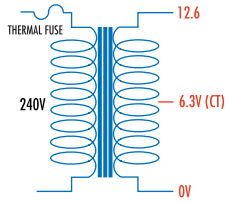
4.5VA, Max 150mA

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2007	$8.95	$7.95	$6.95

12.6V CT, 7VA, 500mA Centre Tapped

TYPE 2853

Specifications			
Type	2853	Temp rise above ambient at rated power	40°C
Secondary winding (s)	Centre Tapped	Regulation	10%
Primary voltage	240VAC	Weight	310g
Total VA rating	7VA	Primary connection	200mm Fly leads
Secondary voltages	12.6V, 6.3V(CT)	Secondary connection	200mm Fly leads
Secondary current (max)	500mA	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	40mA	Dimensions (mm)	A61 D38 L51 W20 H43



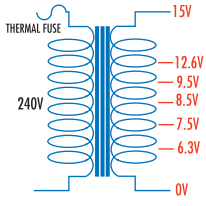
7VA, Max 500mA

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2013	$9.95	$8.75	$7.75

6.3 - 15V, 15VA, 1A Multi-Tapped

TYPE 2155

Specifications			
Type	2155	Temp rise above ambient at rated power	45°C
Secondary winding (s)	Multi-Tapped	Regulation	10%
Primary voltage	240VAC	Weight	665g
Total VA rating	15VA	Primary connection	200mm Fly leads
Secondary voltages	15V, 12.6V, 9.5V, 8.5V, 7.5V(CT), 6.3V(CT)	Secondary connection	Solder lugs
Secondary current (max)	1A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	30mA	Dimensions (mm)	A72 D52 L59 W32 H51



15VA, Max 1A

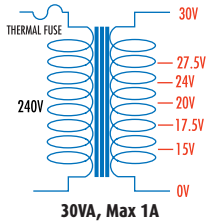
Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2002	$11.95	$10.70	$9.50

15 - 30V, 30VA, 1A Multi-Tapped

SOANAR

TYPE 6672

Specifications			
Type	6672	Temp rise above ambient at rated power	60°C
Secondary winding (s)	Multi-Tapped	Regulation	11%
Primary voltage	240VAC	Weight	924g
Total VA rating	30VA	Primary connection	200mm Fly leads
Secondary voltages	30V, 27.5V, 24V, 20V, 17.5V, 15V(CT)	Secondary connection	Solder lugs
Secondary current (max)	1A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	40mA	Dimensions (mm)	A85 D62 L69 W35 H59



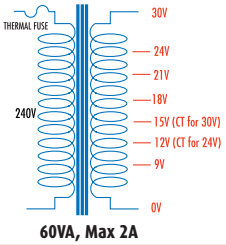
30VA, Max 1A

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2008	$18.95	$16.95	$14.95

9 - 30V, 60VA, 2A Multi-Tapped

TYPE 2165

Specifications			
Type	2165	Temp rise above ambient at rated power	60°C
Secondary winding (s)	Multi-Tapped	Regulation	8%
Primary voltage	240VAC	Weight	955g
Total VA rating	60VA	Primary connection	200mm Fly leads
Secondary voltages	30V, 24V, 21V, 18V, 15V(CT), 12V(CT), 9V(CT)	Secondary connection	Solder lugs
Secondary current (max)	2A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	60mA	Dimensions (mm)	A85 D65 L69 W35 H59



60VA, Max 2A

NOTE: Made from special high grade silicon steel for compact dimensions

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2005	$27.95	$24.95	$22.35

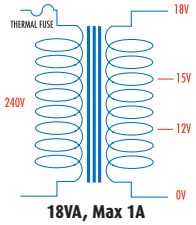
Want it fast? How about next day delivery? See page 4 for details.

Transformers

12V - 18V, 18VA, 1A Multi-Tapped

TYPE 2154

Specifications			
Type	2154	Temp rise above ambient at rated power	60°C
Secondary winding (s)	Multi-Tapped	Regulation	8%
Primary voltage	240VAC	Weight	650g
Total VA rating	18VA	Primary connection	200mm Fly leads
Secondary voltages	18V, 15V, 12V	Secondary connection	Solder lugs
Secondary current (max)	1A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	40mA	Dimensions (mm)	A72 D56 L59 W32 H51



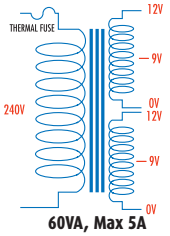
18VA, Max 1A

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2011	$11.95	$10.70	$9.50

9V - 24V, 60VA, 5A Multi-Tapped/Dual

TYPE 2167L

Specifications			
Type	2167L	Temp rise above ambient at rated power	65°C
Secondary winding (s)	Multi-Tapped/dual	Regulation	10%
Primary voltage	240VAC	Weight	1300g
Total VA rating	60VA	Primary connection	200mm Fly leads
Secondary voltages	12V, 9V (x2)	Secondary connection	Solder lugs
Secondary current (max)	2.5A (x2)	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	65mA	Dimensions (mm)	A82 D76 L69 W48 H59



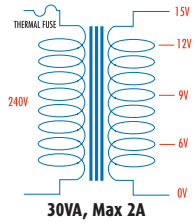
60VA, Max 5A

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2014	$27.95	$24.95	$22.35

6 - 15V, 30VA, 2A Multi-Tapped

TYPE 2156

Specifications			
Type	2156	Temp rise above ambient at rated power	60°C
Secondary winding (s)	Multi-Tapped	Regulation	10%
Primary voltage	240VAC	Weight	920g
Total VA rating	30VA	Primary connection	200mm Fly leads
Secondary voltages	15V, 12V, 9V, 6V(CT)	Secondary connection	Solder lugs
Secondary current (max)	2A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	60mA	Dimensions (mm)	A82 D60 L69 W35 H59



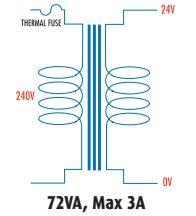
30VA, Max 2A

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2004	$18.95	$16.95	$14.95

24V, 72VA, 3A Single Winding

TYPE 2158

Specifications			
Type	2158	Temp rise above ambient at rated power	65°C
Secondary winding (s)	Single	Regulation	10%
Primary voltage	240VAC	Weight	1300g
Total VA rating	72VA	Primary connection	200mm Fly leads
Secondary voltages	24V	Secondary connection	200mm Fly leads
Secondary current (max)	3A	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	60mA	Dimensions (mm)	A82 D76 L69 W48 H59



72VA, Max 3A

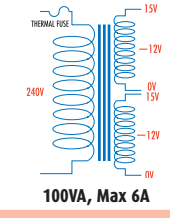
Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2012	$27.95	$24.95	$22.35

12V - 30V, 100VA, 6A Multi-Tapped/Dual

TYPE 2170

SOANAR

Specifications			
Type	2170	Temp rise above ambient at rated power	70°C
Secondary winding (s)	Multi-Tapped/dual	Regulation	7%
Primary voltage	240VAC	Weight	1600g
Total VA rating	100VA	Primary connection	200mm Fly leads
Secondary voltages	15V ,12V(x2)	Secondary connection	Solder lugs
Secondary current (max)	3A (x2)	Conforms to AS/NZ 3108 & AS/NZ 61558.2.6	Yes
Magnetising current	80mA	Dimensions (mm)	A91 D76 L80 W44 H68



100VA, Max 6A

100VA, max 6A when connected in parallel.

Cat.	Qty 1+	Qty 2+	Qty 4+
MM-2015	$29.95	$26.90	$23.70

Build Your Own Coils and Transformers Book

This book is a wealth of information, ideal for hobbyist or anybody interested in winding their own transformers. After the introduction the book covers attributes of coils/transformers, mutual inductance, reactance, resonance, impedance, coil selectivity. It then goes on to the design aspects - discussing coils in tuning circuits, types of formers and cores, types of winding, self capacity, equations, coil design, design of IF transformers then output and power transformers.

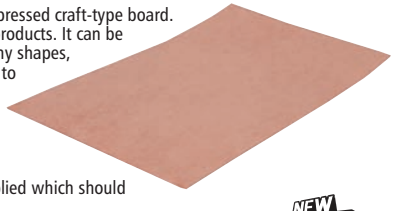
- 55 pages 137 x 212 mm.

BOOK AVAILABLE

Cat.	Qty 1+
BM-2440	$7.50

Press Pahn Insulation Material

This product is similar to a heavily pressed craft-type board. It is used as an insulator in mains products. It can be scored, folded and formed into many shapes, particularly into boxes or partitions to isolate mains circuits from fingers. It has good abrasion resistance and is often used in areas where chafing from vibration can occur.



A sheet 0.8 x 225 x 208mm is supplied which should cover most applications.

- Thermal Rating 150°C
- Class E Thermal Rating
- Dielectric Strength 12kV/mm.

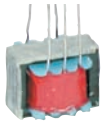
NEW LOWER PRICE

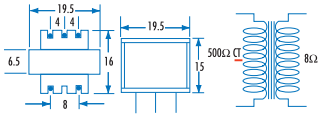
Cat.	Qty 1+	Qty 4+	Qty 10+
HG-9985	$3.95	$3.45	$3.15

Miniature Transformers

MINIATURE OUTPUT TRANSFORMERS

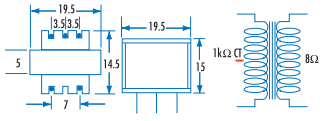
- Primary/secondary 500 ohms ct/8 ohms
- Iron core
- 450mW rating.





STANDARD

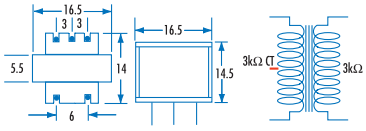
- Primary/secondary 1k ohm ct/8 ohms
- 350mW rating.



	Cat.	Qty 1+	Qty 2+	Qty 4+
Miniature	MM-2530	$5.95	$5.25	$4.75
Standard	MM-2532	$4.95	$4.45	$3.90

MINIATURE COUPLING TRANSFORMER

- 3k ohm CT//3k
- Iron core.



	Cat.	Qty 1+	Qty 2+	Qty 4+
	MM-2534	$4.95	$4.45	$3.90

Miniature Strobe Trigger Transformer

Used to trigger small XENON discharge lamps such as our Cat. SL-2692 (see below).

- Dimensions: 10(L) x 7(Ø)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 10+	Qty 25+
	MM-2520	$1.95	$1.75	$1.55

Xenon Flash Tube

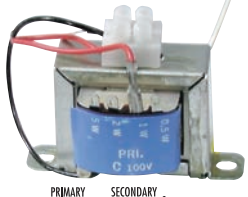
As used in strobe kits.

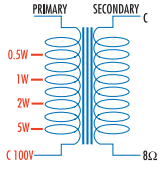
- Operating Voltage:
  Minimum = 250VDC
  Nominal = 300VDC
  Maximum = 400VDC

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2692	$5.50	$4.90	$4.30

5W Line Speaker Transformer





Designed to tap 100V (or 70V 1/2 power) public address amplifier lines to use an 8Ω speaker. Made with grain oriented steel for good frequency response. Good dynamic range. Primary taps enable you to select power level for 8Ω speaker. Connect primary to C (100V) and tap for whatever sound level is required from 0.5-5WRMS.

Supplied with terminal block mounted on top of transformer. Mounting hole centres 53mm

Primary	Power
20k	0.5W
10k	1W
5k	2W
2.5k	5W

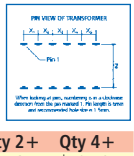
	Cat.	Qty 1+	Qty 2+	Qty 4+
	MM-1900	$10.95	$9.75	$8.75

10VA PCB Mount Power Transformers

These quality transformers are manufactured to AS3108. They have split bobbin construction and 2 entirely separate secondaries. Each unit is protected by a 126°C 250V 2A rated thermal fuse in the primary winding.

Specifications:	
Input	240V AC 50Hz
Output secondaries may be connected in series or parallel	MF-1212 only
Cat. MF-1202	5V@1A, 12V@400mA (2 windings)
Cat. MF-1212	12+12V @420mA
Dimensions	36(H) x 48(W) x 40(D) mm
Weight	254 grams

PIN SPACING mm	X1	X2	X3	X4	Z
10VA & 12VA	5	5	5	5	27.5



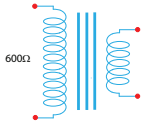
Pin connection diagram

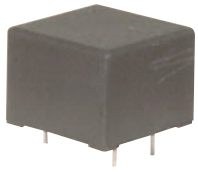
	Cat.	Qty 1+	Qty 2+	Qty 4+
5V + 12V	MF-1202	$15.95	$14.35	$12.70
12V + 12V	MF-1212	$18.95	$16.95	$14.95

600/600 Ohm Isolation Transformer

This epoxy encapsulated isolation transformer is designed for connecting electronic equipment to the telephone system. It is a very small size which makes it ideal for use on PCBs in confined spaces.

- Measures just 18(L) x 14(H) x 18(W) mm
- PCB hole size: 0.7mm
- Approval number: A94 4/LTD/181





	Cat.	Qty 1+	Qty 2+	Qty 4+
	MA-1512	$19.95	$17.70	$15.70

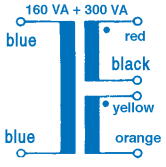
TOROIDALS

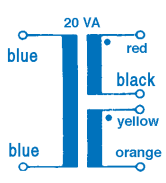
SOANAR

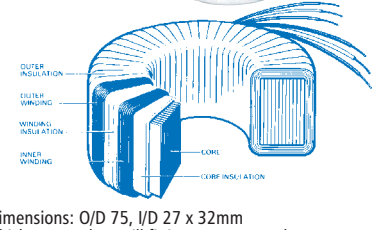
WHY A TOROID?

- Smaller size and weight to meet modern 'slimline' requirements
- Low electrically induced noise demanded by compact equipment
- High efficiency enabling conservative rating whilst maintaining size advantages
- Simple, quick, single bolt mounting

The Toroidal transformer is now accepted as the standard in the industry, quality made to ISO 9000 overtaking the obsolete laminated type. Industry has been quick to recognise the advantage toroidals offer in size, weight and lower radiated field. Current ratings on toroidal transformers. Can be used in 2 ways:-
A) both secondary windings in series - double the volts
B) both secondary windings in parallel - double the amps. Connected in parallel the windings must be connected in phase.







20VA LOW PROFILE • Dimensions: O/D 75, I/D 27 x 32mm
The height is only 30mm, which means they will fit into a 44mm rack case.

Cat.		Secondary Series	Secondary Parallel
MT-2082	9+9V	1.11A	2.22A
MT-2084	12+12V	0.833A	1.66A
MT-2086	15+15V	0.666A	1.333A

			Qty 1+	Qty 2+	Qty 4+
9V	20VA	MT-2082	$23.95	$21.35	$18.95
12V	20VA	MT-2084	$23.95	$21.35	$18.95
15V	20VA	MT-2086	$23.95	$21.35	$18.95

160VA TOROIDS • Dimensions: 110 O/D x 34 I/D x 44(H)mm

Cat.		Secondary Series	Secondary Parallel
MT-2112	12+12V	6.66A	13.33A
MT-2113	18+18V	4.44A	8.88A
MT-2114	25+25V	3.2A	6.4A

			Qty 1+	Qty 2+	Qty 4+
12V	160VA	MT-2112	$54.95	$49.45	$43.90
18V	160VA	MT-2113	$54.95	$49.45	$43.90
25V	160VA	MT-2114	$54.95	$49.45	$43.90

300VA TOROIDS • Dimensions: 125 O/D x 43 I/D x 57(H)mm.

Cat.		Secondary Series	Secondary Parallel
MT-2130	12+12V	12.5A	25.0A
MT-2132	18+18V	8.33A	16.6A
MT-2140	40+40V	3.75A	7.5 A
MT-2144	50+50V	3.0A	6.0A

			Qty 1+	Qty 2+	Qty 4+
12V	300VA	MT-2130	$84.95	$76.50	$67.95
18V	300VA	MT-2132	$84.95	$76.50	$67.95
40V	300VA	MT-2140	$84.95	$76.50	$67.95
50V	300VA	MT-2144	$84.95	$76.50	$67.95

500VA TOROID • Dimensions: 134 O/D x 38 I/D x 66(H)mm.

- Suits our Studio-350 amplifier kit (KC-5372)

Cat.		Secondary Series	Secondary Parallel
MT-2146	50+50V	5A	10A

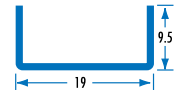
	Cat.	Qty 1+	Qty 2+	Qty 4+
50V 500VA	MT-2146	$125.00	$112.95	$99.95

Heatsinks

HEATSINKS & ACCESSORIES

TO-220 Mini (6073B Type)

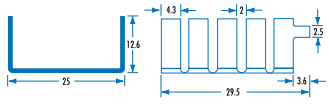
- Equivalent to popular 6073 type.

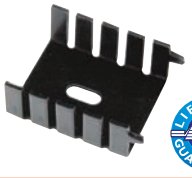


Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
20°C/W	HH-8502	$0.85	$0.75	$0.65

TO-220 (6021 Type)

- Solderable PCB mounting pins

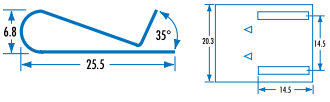


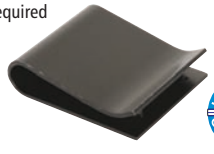


Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
12°C/W	HH-8504	$1.45	$1.30	$1.15

TO-220 Clip-on (6043 Type)

The heatsink will just clip over a device when required for permanent or temporary installation.



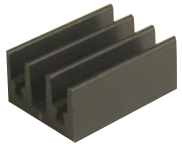


Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
30°C/W	HH-8503	$1.20	$1.05	$0.95

TO-220

These PCB mount heatsinks have two 'screw flute' channels to aid in fastening the sink to a board or surface.

- 16(W) x 21.8(D) x 10(H)mm

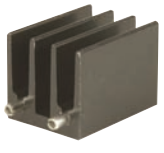


Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
30°C/W	HH-8514	$1.75	$1.55	$1.40

TO-220

Same dimensions as our HH-8514 only with longer fins. These PCB mount heatsinks have two tinned pins to aid in fastening the sink to a board or surface.

- 16(W) x 21.8(D) x 15.8(H)mm
- Pins 2mm dia. x 3mm long



Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
19°C/W	HH-8516	$1.55	$1.35	$1.20

PC Mount TO-3P

Will accept up to TO-3P size flat pack transistors. (This includes TO-220). Includes 2 PC pins, which help stabilise the heatsink and allow you to solder to PCB pads.

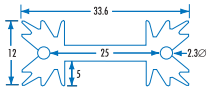
- 2 sizes.

25MM HIGH (6098 TYPE)

- Size 33.6(W) x 12(D) x 25(H)mm. Cat. HH-8520

40MM HIGH (6099 TYPE)

- Size 33.6(W) x 12(D) x 40(H)mm. Cat. HH-8522

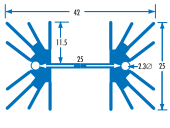


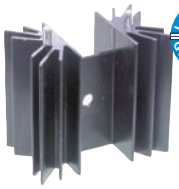
Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
17°C/W	HH-8520	$1.55	$1.35	$1.20
11°C/W	HH-8522	$2.65	$2.30	$1.95

Heavy Duty TO-3P (ML97 Type)

Heavy duty version of the heatsinks described above.

- Solderable screw studs.
- Size 42(W) x 25(D) x 38(H)mm

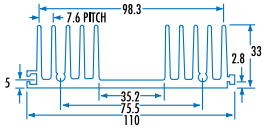


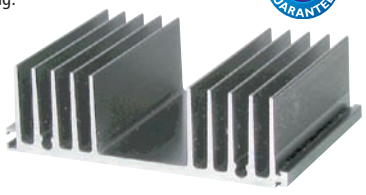


Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
7.5°C/W	HH-8526	$2.75	$2.45	$2.15

Versatile Heavy Duty

- Allows horizontal & vertical mounting.
- Length 72mm
- Undrilled.



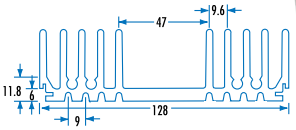


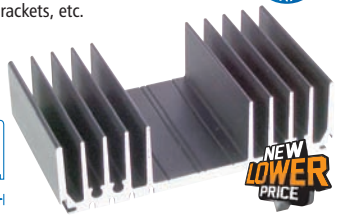
Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
2.2°C/W	HH-8566	$13.95	$12.35	$10.95

Super Heavy Duty

This black anodised heatsink is 36mm high.
Unique recessed channels are incorporated into the flat side to accommodate screws, panels, heatsink brackets, etc.

- 125(W) x 75(L)mm



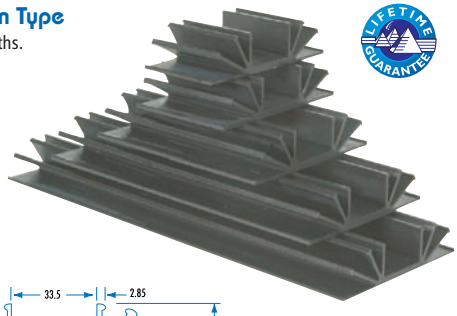


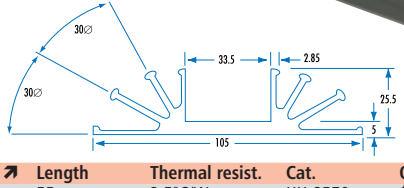
Thermal resistance	Cat.	Qty 1+
1.4°C/W	HH-8590	$14.95

High Efficiency Fan Type

Available in various lengths.

- 105mm wide.

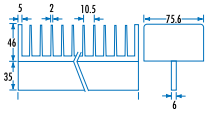




Length	Thermal resist.	Cat.	Qty 1+	Qty 4+	Qty 10+
55mm	2.5°C/W	HH-8570	$5.95	$5.25	$4.75
72mm	2.2°C/W	HH-8572	$8.95	$7.95	$6.95
135mm	1.1°C/W	HH-8573	$11.95	$10.70	$9.50
225mm	0.9°C/W	HH-8574	$17.95	$15.95	$14.35
300mm	0.7°C/W	HH-8578	$21.95	$19.70	$17.35

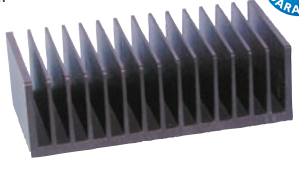
Diecast

- Dimensions: 150(L) x 75(H) x 46(D)mm



- HH-8550 - 35mm bracket
- HH-8555 - No bracket

MADE IN AUSTRALIA



	Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
Bracket	0.784°C/W	HH-8550	$23.95	$21.35	$18.95
No Bracket	1.2°C/W	HH-8555	$19.95	$17.70	$15.70

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

HEATSINKS (CONTINUED)

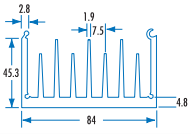
Fan Assisted-Type Heatsink

This heatsink is designed to mate with itself to form a tunnel. The heatsink extrusion has a screw flute centre to enable 4 x No.6 self-tapping screws to fasten an 80mm standard type fan on one (or both) end/s to drive air through the heatsink assembly. It is ideal for high power amplifiers and power supplies. The entire assembly, including fan/s can still fit inside a 2 x Rackunit (88mm) enclosure. The heatsink also features ribbed fins for extra surface area, a 4mm thick base to enable thread tapping and small vee grooves on 5mm centres to facilitate mounting hole location. The centre groove, for example, is directly below the middle fin.

- Two standard lengths are available, black anodised.

Suitable fans are YX-2512 (12V DC) or YX-2510 (240V AC).

Note: 2 heatsinks pictured



Thermal Characteristics:		
ASSEMBLY TYPE	COOLING MODE	RATING (APPROX)
Single Length	Convection	0.83°C/W
Tunnel Assembly	Convection	0.70°C/W
Tunnel Assembly	Fan Assisted (single)	0.35°C/W
Tunnel Assembly	Fan Assisted (dual)	0.30°C/W

MADE IN AUSTRALIA

LIFETIME GUARANTEE

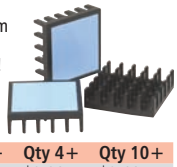
	Cat.	Qty 1+	Qty 4+	Qty 10+
Length 225mm	HH-8530	$22.50	$19.95	$17.95
Length 254mm	HH-8532	$25.75	$22.95	$20.35

HEATSINKS & ACCESSORIES

Heatsink Pin Grid Array with Adhesive Thermal Transfer Tape

LIFETIME GUARANTEE

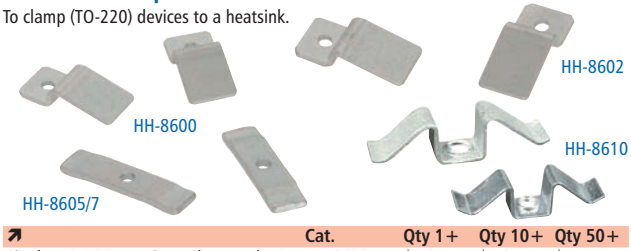
This heatsink makes a perfect partner to Star LED modules. It doesn't get quicker or easier than this! Just peel the backing from the pre-mounted thermal transfer tape, press the Star LED (or whatever device) to the heatsink and SHAZAM!! It's ready to go! Don't be fooled by the compact size. The "pin grid array" design provides excellent low thermal resistance and heat dissipation. Dimensions: 21(L) x 21(W) x 6.2(H)mm



Thermal resistance	Cat.	Qty 1+	Qty 4+	Qty 10+
5.9°C/W	HH-8580	$3.25	$2.90	$2.60

Transistor Clamps

To clamp (TO-220) devices to a heatsink.

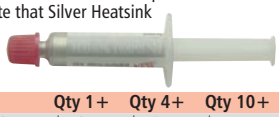


			Cat.	Qty 1+	Qty 10+	Qty 50+
Single	TO-220 Transistor Clamps	Pk 10	HH-8600	$5.95	$5.25	$4.15
Single	TO-220 Transistor Clamps	Pk 100	HH-8602	$19.95	$17.70	$13.70
Dual	TO-220 Transistor Clamps	Pk 100	HH-8607	$19.95	$17.70	$13.70
Dual	TO-220 Transistor Clamp	ea	HH-8610	$1.00	$0.90	$0.80

25% Silver Heatsink Compound

Contains 25% Silver for more efficient heat transfer than standard compounds. Comes in a small ready to use syringe. Please note that Silver Heatsink Compound does conduct electricity and care should be taken when being used.

- Size: 1.5g



	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5g Tube	NM-2013	$5.95	$5.25	$4.75

Heatsink Compound

Heat conducting paste facilitates heat transfer from semiconductors to heatsinks. One 10g tube will do up to 30 TO-3 package transistors.

- Non electrically conductive

	Cat.	Qty 1+	Qty 4+	Qty 10+
10g Tube	NM-2010	$3.95	$3.45	$3.15
50g Syringe	NM-2011	$9.95	$8.75	$7.75
150g Tube	NM-2012	$19.95	$17.70	$15.70

Heatsink Compound - Adhesive

Non electrically conductive

- One 5 gram tube will adhere up to 16 TO-3 package transistors.

	Cat.	Qty 1+	Qty 4+	Qty 10+
5g Tube	NM-2014	$7.95	$6.95	$6.25

Thermal Transfer Tape 100 x 100 x 0.5mm - Pkt 2

When it comes to attaching devices like star LED modules to heatsinks, it's often not easy because they don't have screw 'eyes' like a TO220 transistor package. Using this thermal transfer tape, it's a breeze. The material is self adhesive and provides good thermal conductivity making it easy for chipsets, LED modules, memory modules etc. 2pcs of 100mm x 100mm sheets supplied. Just cut to size.0.5mm thickness.

Specifications	
Thermal Conductivity	1.6 W/m-k
Flammability Level	UL94V-O
Working Temperature Range	-60 ~ +250°C
Insulation Strength	>7,000V/mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NM-2790	$12.95	$11.35	$10.35

Dual Channel Aquarium Temperature

Makers Name: Jared Cabot
Location: Queensland

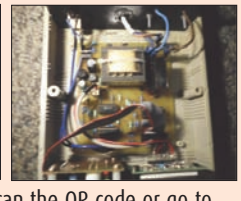
I have 2 aquariums that house tropical and sub-tropical fish. After having the heaters inbuilt thermostat fail on one or two occasions, I thought it was time to make something more precise and reliable. After a bit of thought, it was time to hit Jaycar. I purchased everything needed to build the controllers (except the controllers themselves). It has been working perfectly, and I can check on the temperatures accurate to a tenth of a degree and the status of the heaters with just a glance.

For more details scan the QR code or go to www.jaycar.com.au/makers

Aquarium Heater Controller

Makers Name: Ricky May
Location: Tasmania

This heater controller for aquariums has several refinements over the hard-to-read thermometer and inaccurate heaters usually found in aquariums. It has an easy to read display of the temperature in the aquarium, a second temperature probe is useful for adjusting the water temperature and the temperature setting at which the unit turns the heater on.



For more details scan the QR code or go to www.jaycar.com.au/makers

Fans

MECHANICAL VENTILATION (FANS)

Sirocco

Suitable for computers, office machinery, appliances, copying machines, power units, amplifiers, automatic vending machines, air conditioning, medical equipment etc.

- Long life - 60,000 hours at 25°C, 30,000 hours at 40°C
- Ball bearing: 100,000 hrs @ 25°C
- Operating temperature -20°C to +70°C
- Can be mounted on suction or discharge side
- Wiring will not burn out even if rotating parts are restricted

1 YEAR WARRANTY
ON ALL OF OUR FANS

Size mm	Depth mm	Operating Volt	Bearing Type	Air Volume (CFM)	Speed (RPM)	Connection	Housing	Tacho	Cat	Page
5VDC AXIAL FAN										
30	6	5VDC	Ball	3.1	8,000	Flylead	Plastic	No	YX-2500	174
12VDC AXIAL FANS										
30	6	12VDC	Ball	3.1	8,000	Flylead	Plastic	No	YX-2501	174
40	10	12VDC	Ball	5.4	6,000	Flylead	Plastic	No	YX-2503	175
40	20	12VDC	Sleeve	7.6	7,000	Flylead	Plastic	No	YX-2502	175
40	10	12VDC	Ball	5.4	6,000	Flylead & Plug	Plastic	Yes	XC-5054	175
50	15	12VDC	Sleeve	16.6	5,500	Flylead	Plastic	No	YX-2504	175
50	10	12VDC	Ball	11.6	5,500	Flylead & Plug	Plastic	Yes	XC-5055	175
60	25.4	12VDC	Sleeve	20	4,000	Flylead	Plastic	No	YX-2505	175
80	25.4	12VDC	Sleeve	34	3,000	Flylead	Plastic	No	YX-2512	176
80	25.4	12VDC	Ball	34	3,000	Flylead	Plastic	No	YX-2513	176
80	20	12VDC	Ball	42	3,100	Flylead	Plastic	No	YX-2523	176
80	25	12VDC	Magnetic	28.1	2,000	Flylead	Polycarbonate	No	YX-2580 *	178
80	25	12VDC	Ball	20.7	1,600	3 Pin Molex	Polycarbonate	No	YX-2570 *	178
90	25	12VDC	Sleeve	59	3,000	Flylead	Plastic	No	YX-2521	176
92	25	12VDC	Magnetic	39.8	2,000	Flylead	Polycarbonate	No	YX-2582 *	178
92	25	12VDC	Ball	31.3	1,500	3 Pin Molex	Polycarbonate	No	YX-2572 *	178
120	25.4	12VDC	Ball	88	3,000	Flylead	Plastic	No	YX-2518	176
120	25	12VDC	Ball	88	3,000	Flylead	Plastic	No	YX-2522	176
120	25	12VDC	Magnetic	64.3	1,500	Flylead	Polycarbonate	No	YX-2584 *	178
120	25	12VDC	Ball	37	1,000	3 Pin Molex	Polycarbonate	No	YX-2574 *	178
12VDC BLOWER FANS										
97 x 94	33	12VDC	Ball	26	3,600	Flylead	Plastic	No	YX-2532	174
24VDC AXIAL FAN										
80	25.4	24VDC	Ball	40	3,200	Flylead	Plastic	No	YX-2542	176
240VAC AXIAL FANS										
80	25.4	240VAC	Sleeve	23	2,800	Flylead	Metal	No	YX-2509	177
80	38	240VAC	Sleeve	30	2,800	Flylead	Metal	No	YX-2510	177
80	38	240VAC	Ball	30	2,800	Flylead	Metal	No	YX-2508	177
120	25.4	240VAC	Sleeve	80	2,350	Solder	Metal	No	YX-2516	177
120	38	240VAC	Sleeve	105	3,000	Solder	Metal	No	YX-2514	177
120	38	240VAC	Ball	105	3,000	Solder	Metal	No	YX-2517	177
150	55	240VAC	Ball	230	3,400	Use PS-4160	Metal	No	YX-2520	178

Note: Fans with * on page 178 are not Sirocco brand and have specific technical data. Please refer to that page.

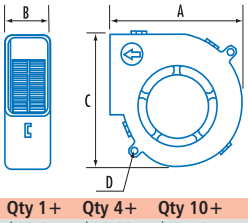
TECH TIP!
All 240V rated fans work equally well on 230V mains

12VDC FANS

97mm x 94mm Blower Fan Ball Bearing - 2 Wire

Ideal for applications where space is limited but high air volume is required.

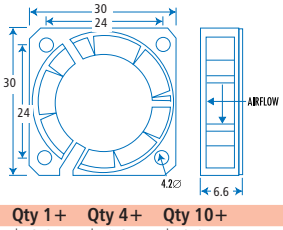
A=97mm
B=33mm
C=94mm



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	97 x 94mm	YX-2532	$29.95	$26.90	$23.70

Specifications	YX-2532
Voltage (V)	12VDC
Current (mA)	860
Dimensions (mm)	97 x 94 x 33
Air volume (m3/min)	0.74
Air volume (CFM)	26
Speed (RPM)	3600
Noise (dBA)	51
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

30mm Thin - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
5VDC	30 x 30mm	YX-2500	$13.95	$12.35	$10.95
12VDC	30 x 30mm	YX-2501	$13.95	$12.35	$10.95

Specifications	YX-2500	YX-2501
Voltage (V)	5VDC	12VDC
Current (mA)	200	120
Dimensions (mm)	30 x 30 x 6	
Air Volume (M3/min)	3.1	
Air Volume (CFM)	108	
Speed (RPM)	8,000	
Noise (dBA)	27	
Bearing System	Ball	
Housing	Plastic, GRP filled	
Impeller	Plastic, GRP filled	
Connections	Flylead	

PRODUCT DATA

We now have so much data and fact sheets we cannot fit it all here! Check our website for over 3,500 pages of data!

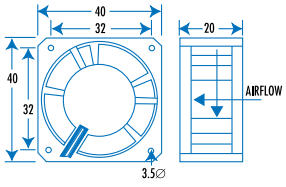
MORE INFO WEB

OPEN A STORE ACCOUNT WITH JAYCAR

Jaycar is now accepting account applications from all established companies who can exhibit good trade references. For application details see our Store Managers.

12VDC FANS (CONTINUED)

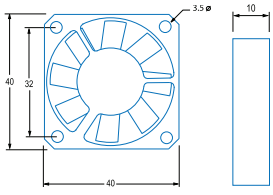
40mm - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	40mm	YX-2502	$19.95	$17.70	$15.70

Specifications	YX-2502
Voltage (V)	12VDC
Current (mA)	100
Dimensions (mm)	40 x 40 x 20
Air volume (m3/min)	0.215
Air volume (CFM)	7.6
Speed (RPM)	7000
Noise (dBA)	32
Bearing	Sleeve
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

40mm Thin - 2 Wire

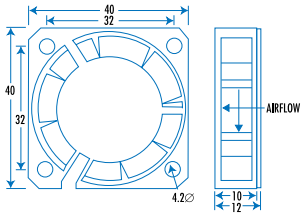


		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	40mm	YX-2503	$16.95	$14.95	$13.35

Specifications	YX-2503
Voltage (V)	12VDC
Current (mA)	80
Dimensions (mm)	40 x 40 x 10
Air volume (m3/min)	0.16
Air volume (CFM)	5.4
Speed (RPM)	6000
Noise (dBA)	30
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

40mm Ball Bearing - 3 Wire

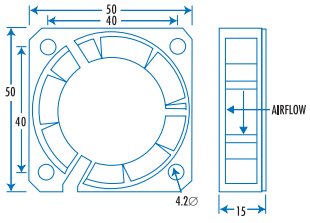
The third wire provides a pulse output - 1 pulse per revolution.



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	40mm	XC-5054	$15.90	$13.95	$12.70

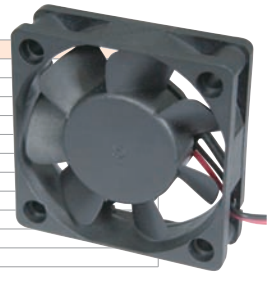
Specifications	XC-5054
Voltage (V)	12VDC
Current (mA)	80
Dimensions (mm)	40 x 40 x 10
Air volume (m3/min)	16
Air volume (CFM)	5.4
Speed (RPM)	6000
Noise (dBA)	30
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

50mm Thin - 2 Wire



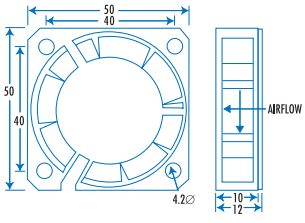
		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	50mm	YX-2504	$17.95	$15.95	$14.35

Specifications	YX-2504
Voltage (V)	12VDC
Current (mA)	190
Dimensions (mm)	50 x 50 x 15
Air volume (m3/min)	0.7
Air volume (CFM)	16.6
Speed (RPM)	5500
Noise (dBA)	33
Bearing	Sleeve
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead



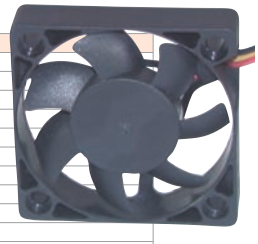
50mm Ball Bearing - 3 Wire

The third wire provides a pulse output - 1 pulse per revolution.

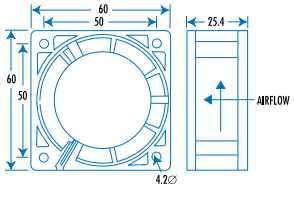


		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	50mm	XC-5055	$15.90	$13.95	$12.70

Specifications	XC-5055
Voltage (V)	12VDC
Current (mA)	130
Dimensions (mm)	50 x 50 x 10
Air volume (m3/min)	0.33
Air volume (CFM)	11.6
Speed (RPM)	5500
Noise (dBA)	31
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

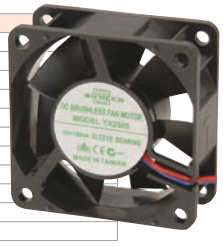


60mm - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	60mm	YX-2505	$17.95	$15.95	$14.35

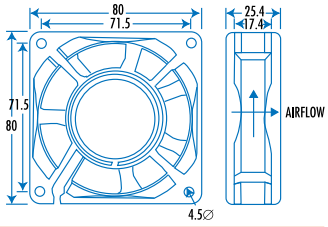
Specifications	YX-2505
Voltage (V)	12VDC
Current (mA)	130
Dimensions (mm)	60 x 60 x 25.4
Air volume (m3/min)	0.57
Air volume (CFM)	20
Speed (RPM)	4000
Noise (dBA)	30
Bearing	Sleeve
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead



Fans

12VDC FANS (CONTINUED)

80mm - 2 Wire

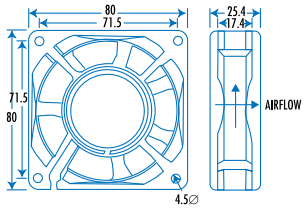


		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	80mm	YX-2512	$17.95	$15.95	$14.35

Specifications	YX-2512
Voltage (V)	12VDC
Current (mA)	200
Dimensions (mm)	80 x 80 x 25.4
Air volume (m3/min)	0.97
Air volume (CFM)	34
Speed (RPM)	3000
Noise (dBA)	32
Bearing	Sleeve
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

80mm Ball Bearing - 2 Wire

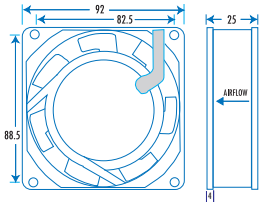
- Life 100,000 hours at 25˚C



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	80mm	YX-2513	$19.95	$17.70	$15.70

Specifications	YX-2513
Voltage (V)	12VDC
Current (mA)	200
Dimensions (mm)	80 x 80 x 25.4
Air volume (m3/min)	0.97
Air volume (CFM)	34
Speed (RPM)	3000
Noise (dBA)	32
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

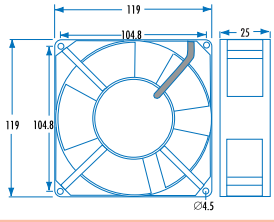
90mm - 2 Wire Fan



		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	90mm	YX-2521	$19.95	$17.70	$15.70

Specifications	YX-2521
Voltage (V)	12VDC
Current (mA)	320
Dimensions (mm)	90 x 90 x 25
Air volume (m3/min)	1.67
Air volume (CFM)	59
Speed (RPM)	3000
Noise (dBA)	36
Bearing	Sleeve
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

120mm Thin Ball Bearing - 2 Wire



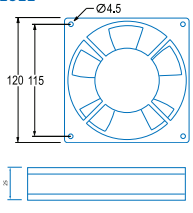
		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	120mm	YX-2518	$28.95	$25.95	$22.95

Specifications	YX-2518
Voltage (V)	12VDC
Current (mA)	360
Dimensions (mm)	120 x 120 x 25.4
Air volume (m3/min)	2.3
Air volume (CFM)	80
Speed (RPM)	3000
Noise (dBA)	42
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

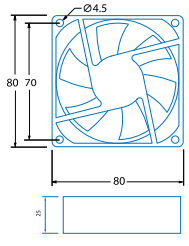
80 & 120mm Ball Bearing - IP55

IP55 rating on a fan which is extremely important, particularly when the fan is located in an environment where dust particles, soot etc can quickly clog up a standard fan and bring it to failure early in life.

YX-2522



YX-2523



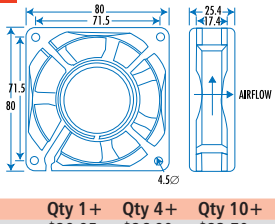
	Diameter	Cat.	Qty 1+	Qty 4+	Qty 10+
12VDC	80mm	YX-2523	$24.95	$22.35	$19.70
12VDC	120mm	YX-2522	$36.95	$33.45	$29.45

Specifications	YX-2522	YX-2523
Voltage (V)	12VDC	12VDC
Current (mA)	380	200
Dimensions (mm)	120 x 120 x 25	80 x 80 x 25
Air volume (m3/min)	3	1.2
Air volume (CFM)	106	42
Speed (RPM)	3000	3100
Noise (dBA)	45	32
Bearing	Ball	Ball
Housing	Plastic, fibreglass filled	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled	Plastic, fibreglass filled
Connections	Flylead	Flylead
Other	IP55	IP55

24VDC FANS

80mm 24VDC Thin Ball Bearing Version - 2 Wire

Life expectancy 100,000 hours @ 25°C.



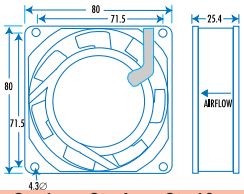
		Cat	Qty 1+	Qty 4+	Qty 10+
24VDC	80mm	YX-2542	$29.95	$26.90	$23.70

Specifications	YX-2542
Voltage (V)	24VDC
Current (mA)	130
Dimensions (mm)	80 x 80 x 25.4
Air volume (m3/min)	1.1
Air volume (CFM)	40
Speed (RPM)	3200
Noise (dBA)	35
Bearing	Ball
Housing	Plastic, fibreglass filled
Impeller	Plastic, fibreglass filled
Connections	Flylead

240VAC FANS

80mm Thin 2 Wire

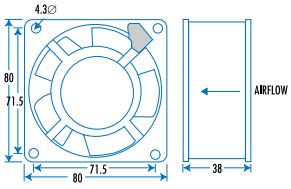
TECH TIP!
All 240V rated fans work equally well on 230V mains



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	80mm	YX-2509	$29.95	$26.90	$23.70

Specifications	YX-2509
Voltage (V)	240VAC
Current (mA)	120
Dimensions (mm)	80 x 80 x 25.4
Air volume (m3/min)	0.67
Air volume (CFM)	23
Speed (RPM)	2800
Noise (dBA)	33
Bearing	Sleeve
Housing	Diecast zinc, aluminium
Impeller	Plastic, fibreglass filled
Connections	Flylead

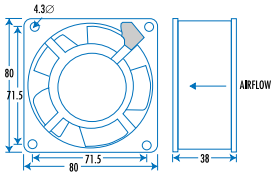
80mm Standard - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	80mm	YX-2510	$29.95	$26.90	$23.70

Specifications	YX-2510
Voltage (V)	240VAC
Current (mA)	80
Dimensions (mm)	80 x 80 x 38
Air volume (m3/min)	0.88
Air volume (CFM)	30
Speed (RPM)	2800
Noise (dBA)	35
Bearing	Sleeve
Housing	Diecast aluminium, powdercoated
Impeller	Plastic, fibreglass filled
Connections	Flylead

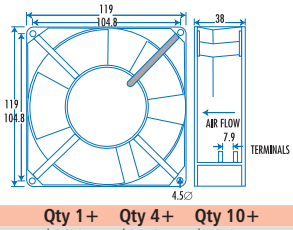
80mm Ball Bearing - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	80mm	YX-2508	$36.95	$33.45	$29.45

Specifications	YX-2508
Voltage (V)	240VAC
Current (mA)	100
Dimensions (mm)	80 x 80 x 38
Air volume (m3/min)	0.88
Air volume (CFM)	30
Speed (RPM)	2800
Noise (dBA)	32
Bearing	Ball
Housing	Diecast aluminium, powdercoated
Impeller	Plastic, fibreglass filled
Connections	Flylead
Other	Life - 100,000 hrs@25°C

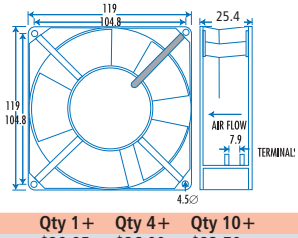
120mm - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	120mm	YX-2514	$28.95	$25.95	$22.95

Specifications	YX-2514
Voltage (V)	240VAC
Current (mA)	125
Dimensions (mm)	120 x 120 x 38
Air volume (m3/min)	3
Air volume (CFM)	105
Speed (RPM)	3000
Noise (dBA)	47
Bearing	Sleeve
Housing	Diecast aluminium
Impeller	Plastic, fibreglass filled
Connections	Solder lugs
Other	-

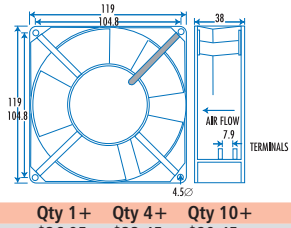
120mm Thin - 2 Wire



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	120mm	YX-2516	$29.95	$26.90	$23.70

Specifications	YX-2516
Voltage (V)	240VAC
Current (mA)	120
Dimensions (mm)	120 x 120 x 25.4
Air volume (m3/min)	2.3
Air volume (CFM)	80
Speed (RPM)	2350
Noise (dBA)	44
Bearing	Sleeve
Housing	Diecast aluminium
Impeller	Plastic, fibreglass filled
Connections	Flylead
Other	-

120mm Ball Bearing - 2 Wire



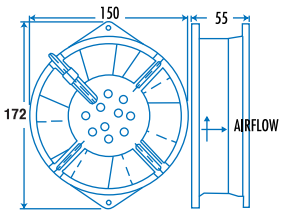
		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	120mm	YX-2517	$36.95	$33.45	$29.45

Specifications	YX-2517
Voltage (V)	240VAC
Current (mA)	125
Dimensions (mm)	120 x 120 x 38
Air volume (m3/min)	3
Air volume (CFM)	105
Speed (RPM)	3000
Noise (dBA)	47
Bearing	Ball
Housing	Diecast aluminium
Impeller	Plastic, fibreglass filled
Connections	Flylead
Other	-

Fans

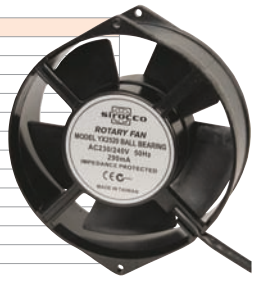
240VAC FANS (CONTINUED)

150mm - 2 Wire Fan



		Cat	Qty 1+	Qty 4+	Qty 10+
240VAC	150mm	YX-2520	$84.95	$76.50	$67.95

Specifications	YX-2520
Voltage (V)	240VAC
Current (mA)	290
Dimensions (mm)	150 x 172 x 55
Air volume (m3/min)	6.57
Air volume (CFM)	230
Speed (RPM)	3400
Noise (dBA)	53
Bearing	Ball
Housing	Diecast aluminium
Impeller	Plastic, fibreglass filled
Connections	Flylead
Other	-



12VDC MAGLEV & HYDRODYNAMIC FANS

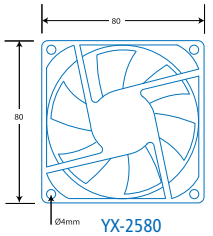
Super Long-Life Low-Noise MagLev Bearing Case Fans

Featuring a patented Nanoflux bearing that incorporates magnetic levitation (maglev) technology and precise manufacturing, these premium quality fans ensure an extremely long operational life of 100,000hrs at 40ºC (even longer at 25ºC). Not only does the unique self-lubricating maglev bearing design offer extremely long life, but also extremely low noise levels compared to traditional ball bearings, and also offers the ability for the fan impeller to be removed for cleaning. The fan impeller itself has a winglet tip design and is UV reactive. Rubber fan mounts are also included to eliminate fan motor vibrations entering the case, further reducing noise levels. Dust and water proof to IP54, these fans are sure to last even in harsh conditions.

- Flylead with 3 pin molex connector
- Black: earth, Red: 12V+, Yellow: Tacho output (1 pulse/rev)
- Nanoflux magnetic levitation bearings
- Polycarbonate housing
- UV reactive polycarbonate impellers

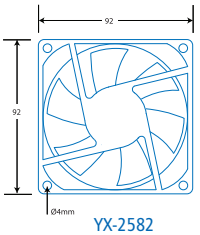
Specifications	YX-2580	YX-2582	YX-2584
Voltage (V)	12VDC	12VDC	12VDC
Starting voltage (V)	5VDC	5VDC	5VDC
Current (mA)	100	180	220
Dimensions (mm)	80 x 80 x 25	92 x 92 x 25	120 x 120 x 25
Air volume (m3/min)	0.8	1.13	1.82
Air volume (CFM)	28.1	39.8	64.3
Speed (RPM)	2000	2000	1500
Noise (dBA)	21	22.5	25
Bearings	Nanoflux magnetic levitation	Nanoflux magnetic levitation	Nanoflux magnetic levitation
Housing	Polycarbonate	Polycarbonate	Polycarbonate
Impellers	UV reactive polycarbonate	UV reactive polycarbonate	UV reactive polycarbonate
Connections	Flylead with 3 pin molex	Flylead with 3 pin molex	Flylead with 3 pin molex

		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	80mm	YX-2580	$24.95	$22.35	$19.70
12VDC	90mm	YX-2582	$29.95	$26.90	$23.70
12VDC	120mm	YX-2584	$34.95	$31.45	$27.90

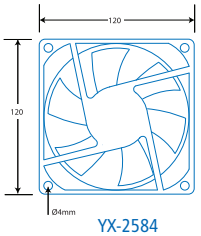


YX-2580

YX-2582



YX-2582



YX-2584

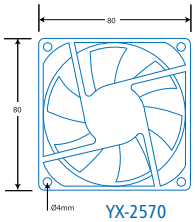
Silent Hydrodynamic Bearing Case Fans

Designed to provide additional airflow without increasing noise levels these fans have precisely balanced blades and long-life hydro-dynamic bearing. Ultra-low noise making these fans are perfect for a home theatre PC, or ventilating the amplifier wedged into your entertainment unit. To further improve silence, rubber fan mounts are included to eliminate fan motor vibrations inducing vibration noise.

- Rated to last for 50,000 hours at 40ºC (more at 25ºC).

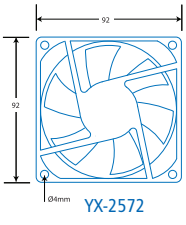
Specifications	YX-2570	YX-2572	YX-2574
Voltage (V)	12VDC	12VDC	12VDC
Current (mA)	80	130	80
Dimensions (mm)	80 x 80 x 25	92 x 92 x 25	120 x 120 x 25
Air volume (m3/min)	0.59	0.89	1.05
Air volume (CFM)	20.7	31.3	37
Speed (RPM)	1600	1500	1000
Noise (dBA)	18	20	20.2
Bearings	Ball (hydrodynamic)	Ball (hydrodynamic)	Ball (hydrodynamic)
Housing	Polycarbonate	Polycarbonate	Polycarbonate
Impellers	Polycarbonate	Polycarbonate	Polycarbonate
Connections	Flylead with 3 Pin Molex	Flylead with 3 Pin Molex	Flylead with 3 Pin Molex

		Cat	Qty 1+	Qty 4+	Qty 10+
12VDC	80mm	YX-2570	$19.95	$17.70	$15.70
12VDC	90mm	YX-2572	$24.95	$22.35	$19.70
12VDC	120mm	YX-2574	$28.95	$25.95	$22.95

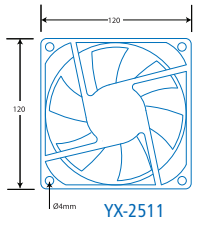


YX-2570

YX-2570



YX-2572



YX-2511

FAN ACCESSORIES

Fan Power Lead

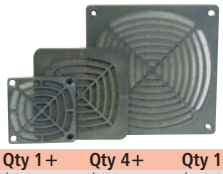
This lead is for use with our 240VAC fans with two lugs for power connection. It comes with a moulded plug to suit fan one end, and bare wires at the other.

Length	Cat	Qty 1+	Qty 4+	Qty 10+
1.2m	PS-4160	$3.95	$3.45	$3.15

Plastic Fan Guard / Filter Kits

Foam filter prevents dust particles entering the fan. Rated to UL 94V-0.

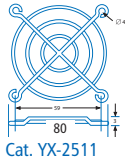
- We recommend periodic cleaning of the foam filter to prevent clogging and restricting air flow.
- Available in 3 sizes.



Width	Cat	Qty 1+	Qty 4+	Qty 10+
60mm	YX-2550	$6.95	$6.25	$5.50
80mm	YX-2552	$6.95	$6.25	$5.50
120mm	YX-2554	$7.95	$6.95	$6.25

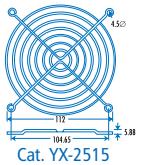
Fan Finger Guards

80mm Fans



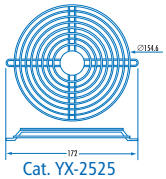
Cat. YX-2511

120mm Fans



Cat. YX-2515

150mm Fans



Cat. YX-2525

	Cat	Qty 1+	Qty 4+	Qty 10+
80mm	YX-2511	$3.95	$3.45	$3.15
120mm	YX-2515	$4.95	$4.45	$3.90
150mm	YX-2525	$8.95	$7.95	$6.95

This colour pricebar denotes a Clearance item - check for specials.

M205 FUSES - 20 x 5MM

M205 Fast Blow

100mA	Cat. SF-2148	1.6A	Cat. SF-2161
160mA	Cat. SF-2152	2.5A	Cat. SF-2169
200mA	Cat. SF-2153	3A	Cat. SF-2162
250mA	Cat. SF-2154	3.15A	Cat. SF-2163
315mA	Cat. SF-2155	4A	Cat. SF-2164
500mA	Cat. SF-2156	5A	Cat. SF-2166
800mA	Cat. SF-2157	6.5A	Cat. SF-2167
1A	Cat. SF-2158	10A	Cat. SF-2168
1.25A	Cat. SF-2159		
2A	Cat. SF-2160		

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$0.40	$0.35	$0.30

M205 Slow Blow

Slow blow M205 size glass fuses. Rated voltage 250VAC. Dimensions 20(L) x 5(Dia)mm

500mA	Cat. SF-2170	3.15A	Cat. SF-2177
1A	Cat. SF-2172	4A	Cat. SF-2175
1.5A	Cat. SF-2173	5A	Cat. SF-2178
2A	Cat. SF-2174	10A	Cat. SF-2179
3A	Cat. SF-2176		

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$1.25	$1.10	$0.97

M205 Ceramic Fast Blow

These fuses are used in microwave ovens and precision equipment. They are fast acting and rapidly respond to a fault condition. They are sand filled and their interrupting capacity is 1500A at 240VAC.

1.0A	Cat: SF-2104	4.0A	Cat: SF-2108
1.6A	Cat: SF-2106	5.0A	Cat: SF-2109
2.5A	Cat: SF-2107	6.3A	Cat: SF-2110
3.15A	Cat: SF-2105	8A	Cat: SF-2112
		10A	Cat: SF-2114

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$1.25	$1.10	$0.97

M205 Ceramic Slow Blow

1.0A	Cat. SF-2115	6.3A	Cat. SF-2119
4A	Cat. SF-2118	2.5A	Cat. SF-2117
1.6A	Cat. SF-2116	8A	Cat. SF-2121

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$1.45	$1.30	$1.15

M205 Fuse Packs

40 FUSES

5 x 500mA, 10 x 1A,
10 x 2A, 5 x 3A, 5 x 5A, 5 x 10A

Cat	Qty 1+	Qty 10+	Qty 25+
SF-2242	$12.95	$11.35	$10.35

5AG FUSES - 3/8" x 1 1/2"

(10 x 38mm)

- Gold plated

Suits the gold fuse holders in the car audio section.

- Fuse size 38(L) x 10(Dia.)mm.

20A	Cat. SF-1970	50A	Cat. SF-1976
30A	Cat. SF-1972	60A	Cat. SF-1978
40A	Cat. SF-1974		

Qty breaks for one type only

Cat.	Qty 1+	Qty 4+	Qty 10+
All Types / Each	$2.25	$1.95	$1.80

3AG FUSES - 1/4"x1 1/4" (30x6mm)

3AG Fast Blow

100mA	Cat. SF-2182	4A	Cat. SF-2198
150mA	Cat. SF-2184	5A	Cat. SF-2200
250mA	Cat. SF-2186	7A	Cat. SF-2201
500mA	Cat. SF-2188	7.5A	Cat. SF-2202
630mA	Cat. SF-2189	10A	Cat. SF-2204
1A	Cat. SF-2190	15A	Cat. SF-2206
1.5A	Cat. SF-2192	20A	Cat. SF-2208
2A	Cat. SF-2194	25A	Cat. SF-2210
3A	Cat. SF-2196		

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$0.40	$0.35	$0.30

3AG Slow Blow

Slow blow 3AG size glass fuses. Rated voltage 250VAC. Dimensions 30(L) x 6(Dia)mm

1A	Cat. SF-2226	4A	Cat. SF-2231
1.5A	Cat. SF-2227	5A	Cat. SF-2232
2A	Cat. SF-2228	7.5A	Cat. SF-2233
3A	Cat. SF-2230	10A	Cat. SF-2234

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$1.25	$1.10	$0.97

3AG Ceramic Fast Blow

These fuses are used in microwave ovens and precision equipment. They are fast acting and rapidly respond to a fault condition. They are sand filled and their interrupting capacity is 1500A at 240VAC.

7A	Cat: SF-2120
8A	Cat: SF-2122
10A	Cat: SF-2124

Quantity breaks for one type only

Cat.	Qty 1+	Qty 10+	Qty 25+
All Types / Each	$1.25	$1.10	$0.97

3AG Fuse Packs

40 FUSES

The economical way to buy fuses. Consists of:
4 x 500mA, 8 x 1A, 6 x 1.5A, 4 x 2A, 6 x 3A, 4 x 5A, 4 x 7.5A, 4 x 10A

Cat	Qty 1+	Qty 10+	Qty 25+
SF-2240	$12.95	$11.35	$10.35

DMM FUSES

Fast Acting Cartridge Fuses

For use in multimeters. As used in multimeters. Fast acting fuse designed for use in circuits with high AC fault current capacity. Listed by Underwriters Laboratories and certified by CSA.

SF-2276 1A 600V
Dimensions: 35 x 10 mm

SF-2277 1kV 10A.
SF-2274 15A 600V
Dimensions: 38 x 10 mm

Spare ferrule fuses for our IP67 CAT IV rated DMMs:
SF-2278 1kV 500mA
SF-2279 1kV 800mA
Dimensions: 32 x 6.35mm

Cat.	Qty 1+	Qty 3+	Qty 6+
SF-2276	$8.95	$7.95	$6.95
SF-2279	$9.95	$8.75	$7.75
SF-2278	$9.95	$8.75	$7.75
SF-2274	$17.95	$15.95	$14.35
SF-2277	$14.95	$13.35	$11.70

FUSE WIRE

Fuse Wire

Includes 8 amp for lights and 15 amp for power.

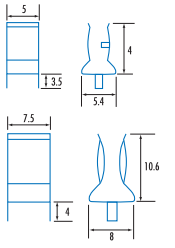
RELATED PRODUCT...
Blade Fuses are on page 244.

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2005	$2.95	$2.60	$2.30

PCB MOUNT FUSE HOLDERS

Fuse Clips

- Nickel plated
- PCB mount



Size	Pkt	Cat	Qty 1+	Qty 10+	Qty 25+
M205	8	SZ-2018	$2.75	$2.45	$2.15
M205	100	SZ-2019	$18.95	$16.95	$14.95
3AG	8	SZ-2022	$2.75	$2.45	$2.15
3AG	100	SZ-2023	$18.95	$16.95	$14.95

M205 PCB Mount Fuse Holder

PCB mounting M205 fuse holder. Supplied with screw cover to hold fuse in place.

- Max Fuse: 6.3A @ 250VAC

Mounting	Cat	Qty 1+	Qty 10+	Qty 25+
Vertical	SZ-2038	$3.50	$3.15	$2.75
Horizontal	SZ-2039	$3.50	$3.15	$2.75

INLINE FUSE HOLDERS

3AG

Plastic in-line type.

- As used on car radios, CB, etc.
- Takes 3AG fuses. • Low volt DC only • 10A max.

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2015	$1.75	$1.55	$1.40

3AG Moistureproof Fuseholder

Two rubber parts push together over the fuse to keep moisture out. Ideal for boats, cars etc.

- Cable needs to be soldered on, crimped to end parts.
- Could be made virtually waterproof with some silicone sealant.
- Low volt DC only / 10A max

Note: Not suitable for 6mm fuses.

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2014	$2.50	$2.21	$1.95

3AG 20A High Current

If you want to fuse something higher than 5 amp you will need this holder.

- Super strong plastic holder
- Supplied with cable loop.
- Simply cut and join to existing cables.
- Low volt DC only

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2016	$3.50	$3.15	$2.75

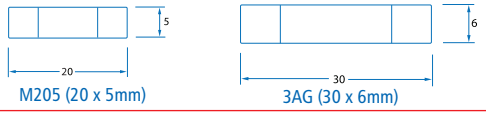
5AG 40 Amp

For high-powered car sound systems.

- Accepts 5AG fuse.
- 80(L) x 19(D)mm.
- Supplied with a small length of cable, simply cut and join in line.
- Low volt DC only

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2065	$7.95	$6.95	$6.25

FUSE DIMENSIONS

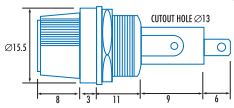


Circuit Protection

PANEL FUSE HOLDERS

M205 - Low Volt Only

- Takes M205 fuses (20 x 5mm)
- Recommended for low voltage or DC side circuits only.
- Panel hole 13mm.
- 6.3A 240V max.

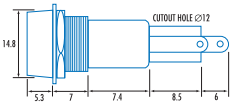


Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2030	$1.95	$1.75	$1.55

M205 - Safe

Fuse retainer is released by simply depressing catch by inserting a screwdriver or any similar tool or object into the small rectangular hole on top of the fuseholder.

- Panel hole 12mm.
- 6.3A 240V max.

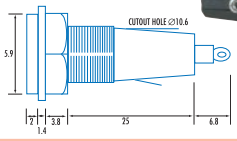


Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2034	$1.95	$1.75	$1.55

M205 - Very Safe

6.3A 250V.

- Panel hole 11mm.
- Fits M205 size fuses
- Screwdriver cover removal
- Fingers cannot touch metal inside

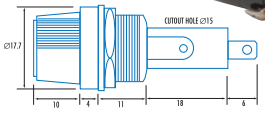


Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2028	$2.75	$2.45	$2.15

3AG - Low Volt Only

Panel mount type.

- Accepts 3AG fuses.
- Panel hole 15mm.
- Recommended for low voltage or DC side circuits only.
- 10A max.

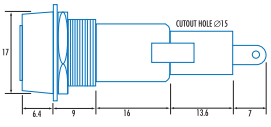


Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2020	$1.95	$1.75	$1.55

3AG - Safe

Fuse retainer is released by simply depressing catch by inserting a screwdriver or any similar tool or object in to the small rectangular hole on top of the fuseholder.

- Panel hole 15mm.
- 10A max.

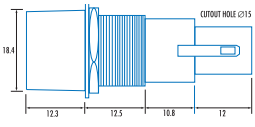


Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2036	$2.75	$2.45	$2.15

3AG - Very Safe

3AG 10 amp 240V chassis mount (32 x 6.35 mm)

- Screwdriver cover removal
- Fingers cannot touch metal inside
- 10A max.



Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2025	$2.95	$2.60	$2.30

5AG - Low Volt Only

Panel mounting fuse holder, screw cap style. Suits 5AG sized fuses up to 30A current rating.

- Low voltage only

Cat.	Qty 1+	Qty 10+	Qty 25+
SZ-2029	$4.95	$4.45	$3.90

FUSE HOLDERS

Marine Grade Illuminated Switch Panels with Circuit Breakers

NEW 2013

An economical solution to controlling multiple DC circuits on your boat, or any other application where you want to switch multiple DC circuits. Each switch panel is an attractive moulded ABS plate, with high quality 10A rated illuminated rocker switches and re-settable circuit breakers on each circuit. Power is supplied on a common rail to keep wiring neater, and wiring connections are made with standard spade terminals.

Two versions available:
4 Way - Dimensions 110(H) x 100(W) x 45(D)mm
Cat. SZ-1902

6 Way - Dimensions 160(H) x 100(W) x 45(D)mm
Cat. SZ-1903

Size	Cat.	Qty 1+	Qty 10+	Qty 25+
4 Way	SZ-1902	$29.95	$26.90	$23.70
6 Way	SZ-1903	$39.95	$35.90	$31.90

IP66 Marine Switch Panels with Circuit Breakers

NEW 2013

These units feature the attractive tactile rocker switches that are common on luxury Australian and foreign made motor cruisers. The panels have Butyl rubber gaskets and IP66 water resistant rated switches and circuit breakers, making these switch panels suitable for an exposed environment. They are pre-wired as much as possible, with wiring connections made via standard spade terminals for ease. Both require about 80mm of space behind the mounting bulkhead. The 4 way has 6,10,15 & 20A rated circuit breakers and the 6 way has 6,6,10,10,15 & 20A breakers, and the switches feature LED illumination to let you know which circuit is active.

- Moulded from ABS plastic, black in colour.

Two versions available:

Dimensions:
4 Way: 120(H) x 130(W)mm
6 Way: 170(H) x 130(W)mm

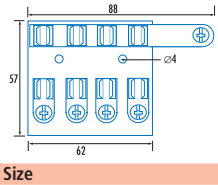
Type	Cat.	Qty 1+	Qty 10+	Qty 25+
4 Way	SZ-1906	$59.95	$53.95	$47.90
6 Way	SZ-1907	$79.95	$71.95	$63.95

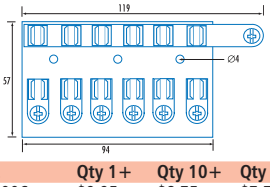
Fuse Gang Blocks

All have natural brass contacts riveted to a fibreglass filled nylon board. Both can be easily split into modules of two. Ideal for automotive, aircraft, marine or other low voltage applications.

- 4 & 6 Way with power/ earth bus.
- Accepts 3AG type fuses
- Plated screw terminals
- Can be safely screwed to a metal surface (low voltage only)
- 15A max. all models

SZ-2006





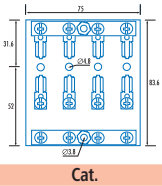
Size		Cat.	Qty 1+	Qty 10+	Qty 25+
4 way	57 x 60mm	SZ-2006	$9.95	$8.75	$7.75
6 way	57 x 90mm	SZ-2007	$12.95	$11.35	$10.35

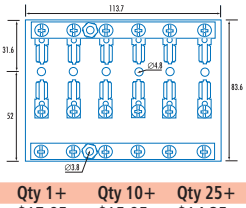
Double BusBar for 3AG Fuses

SZ-2010

One bus connected to one side of fuse clip. This could be, say, to +12V. The other side of the clip is riveted to the board and has a brass power screw termination. You could wire to your application and return to the other busbar for say, earth. We recommend that this board is stood off from a metal bulkhead for extra electrical safety.

- Accepts 3AG fuses.
- 15A max. all models





Size		Cat.	Qty 1+	Qty 10+	Qty 25+
4 way	83 x 75mm	SZ-2009	$17.95	$15.95	$14.35
6 way	83 x 100mm	SZ-2010	$19.95	$17.70	$15.70

This colour pricebar denotes a Clearance item - check for specials.

Pre Wired Switch/Fuse Panels

Attractive anodised plate with screen printed graphics. Each circuit is pre-wired to greatly assist installation. Rocker switches 10A DC 12V rated. A 12V Pilot globe illuminates switch to indicate "on". Fuse holder is safety type, 3AG. Supplied with each panel is a set of 23 stickers naming typical circuits (mainly for marine applications). Mounting screws and a couple of 5A, 3AG fuses are also included.

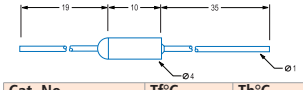
	Size		Cat.	Qty 1+	Qty 10+	Qty 25+
	4 Way	115 x 110mm	SZ-1900	$37.95	$33.95	$30.45
	6 Way	115 x 168mm	SZ-1901	$49.95	$44.90	$39.90

THERMAL PROTECTION

Thermal Fuses

These devices go open circuit permanently when they reach their rated temperature. They are used extensively in 240V mains rated appliances including, heaters, fan heaters, curlers, hair dryers, toasters, etc.

- UL, CSA Approved



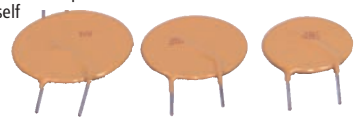
Cat. No	Tf°C	Th°C	Tm°C	Opening Temp
ST-3800	75	50	105	70°C +3/-1
ST-3804	136	101	166	132°C +2/-2
ST-3808	158	123	263	154°C +0/-5
ST-3810	185	150	263	182°C +1/-3
ST-3812	219	174	249	214°C +2/-2
ST-3814	233	188	263	229°C +1/-3

	Marking	Cat.	Qty 1+	Qty 10+	Qty 25+
	Yellow	ST-3800	$3.50	$3.15	$2.75
	Grey	ST-3804	$3.50	$3.15	$2.75
	Black	ST-3808	$3.50	$3.15	$2.75
	Light Green	ST-3810	$3.50	$3.15	$2.75
	Dark Green	ST-3812	$3.50	$3.15	$2.75
	Dark Blue	ST-3814	$3.50	$3.15	$2.75

POLYSWITCHES

PTC Fuses - Circuit Protection

Polyswitch protectors are based on conductive polymers and act like resettable solid state circuit breakers. When the operating current of the protector is exceeded the interior of the device partially melts, which increases the volume increasing the resistance drastically. This in turn reduces the current. The device stays in this state while the current is maintained because its temperature is elevated. Once the current is removed, the device re-establishes itself almost immediately, so that the low resistance value is restored.

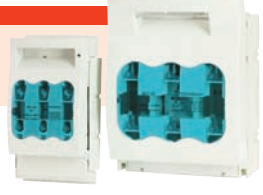


- Voltage ratings RN3460/62 - 60V; the rest are 50V.

Cat.	Industry	Trip			Trip Current
	Part No	Watts 4Ω	6Ω	8Ω	Amps
RN-3460	RXE075	5.1	7.7	10.2	1.50
RN-3462	RXE090	7.3	10.9	14.6	1.8
RN-3464	RXE110	10.9	16.3	21.8	2.2
RN-3466	RXE160	23.0	34.6	46.1	3.2
RN-3468	RXE185	31.4	47.0	62.7	3.7
RN-3470	RXE250	56.3	84.4	112.5	5.0

	Industry No.	Cat	Qty 1+	Qty 10+	Qty 25+
	RXE075	RN-3460	$2.95	$2.60	$2.30
	RXE090	RN-3462	$3.25	$2.90	$2.60
	RXE110	RN-3464	$3.50	$3.15	$2.75
	RXE160	RN-3466	$3.95	$3.45	$3.15
	RXE185	RN-3468	$3.95	$3.45	$3.15
	RXE250	RN-3470	$4.50	$3.95	$3.60

RELATED PRODUCT...
Check out our range of High Current Fuses & Fuseholders on page 324

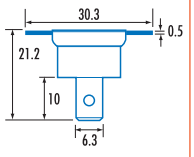


THERMOSTAT SWITCHES

AUTOMATIC RESETTING BI-METALLIC DISC, SNAP ACTING
This phenolic-housed unit attaches to any metal surface.

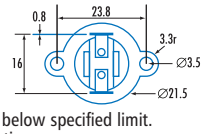
- Normally closed or normally open available

Specifications:	
Operating tolerance	+/- 5°C (32VDC),
	+/- 8°C(125VAC),
	+/- 10°C (250VAC)
Reset differential	10°C - 50°C
Contact endurance	32VDC - 100mA - 50,000 cycles
Cycles	125VAC - 10A - 100,000 cycles
Cycles	250VAC - 6A - 30,000 cycles
Interrupt capacity	125VAC x 60A - 5 cycles
Overshoot temperature	200°C/5 minutes
Dielectric strength	1500VAC 1 minute
Reset type	Auto Reset



NORMALLY CLOSED

When the surface meets or exceeds a certain temperature, the SPST bi-metallic element goes open circuit.



- The unit resets automatically when temperature falls below specified limit.
- Ideal for any electrical item that needs thermal protection.

	Opening Temp (°C)	Reclosing Temp (approx) (°C)	Cat.	Qty 1+	Qty 10+	Qty 25+
	60	40	ST-3821	$5.75	$4.95	$4.60
	70	58	ST-3823	$5.75	$4.95	$4.60
	90	75	ST-3825	$5.75	$4.95	$4.60
	100	85	ST-3826	$5.75	$4.95	$4.60

NORMALLY OPEN

These thermostat switches have normally open contacts. They operate once the temperature reaches a specified limit and automatically reset to their original normally open state once the temperature drops below its rated temperature. These are suitable for power amplifier applications and other temperature sensitive devices where a cooling fan needs to be integrated to cool the device down. Mounting holes are provided, ideal for attachment to a heatsink or any metallic surface.

	Thermostat (°C)	Cat.	Qty 1+	Qty 10+	Qty 25+
	50	ST-3831	$5.75	$4.95	$4.60
	70	ST-3833	$5.75	$4.95	$4.60
	100	ST-3836	$5.75	$4.95	$4.60

CIRCUIT BREAKERS

Chassis Mount Auto Circuit Breakers

Single pole thermal circuit breaker. Auto reset.
- 12 and 24VDC in current ratings from 20 - 50A.

RELATED PRODUCT...
See page 324 for our range of high current AC & DC Circuit Breakers

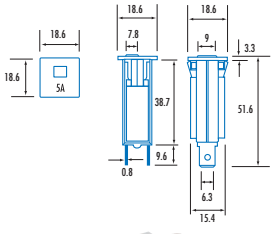
NEW LOWER PRICE

	Amp	Approval	Cat.	Qty 1+	Qty 10+	Qty 25+
	20A	12VDC	SF-4100	$7.95	$6.95	$6.25
	30A	12VDC	SF-4102	$7.95	$6.95	$6.25
	40A	12VDC	SF-4104	$7.95	$6.95	$6.25
	50A	12VDC	SF-4106	$7.95	$6.95	$6.25
	20A	24VDC	SF-4108	$7.95	$6.95	$6.25

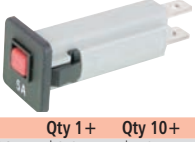
Panel Mount Thermal Circuit Breakers (CBE)

IEC 934 TYPE "R/TO"
These attractive looking units feature a black 19mm square facade with a centrally mounted bright red 'trip' button.

- When tripped, the red button extends
- To reset simply push button back in (once fault has been cleared)
- Slow response time ideal for inductive/reactive loads



Specifications	
Hold current	100% load indefinitely
Trip current	Within 1 hour @ 135% load Within 1 min. @ 200% load
Input	32VDC, 125VAC & 250VAC
Dielectric strength	1500VAC 1 Minute
Contact endurance	>500 cycles @ 150% of contact rating.



	Rating (AAC)	Resistance (Ω)	Cat.	Qty 1+	Qty 10+	Qty 25+
	3	0.16	SF-2293	$8.95	$7.95	$6.95
	5	0.12	SF-2295	$8.95	$7.95	$6.95
	7	0.075	SF-2297	$8.95	$7.95	$6.95
	10	0.015	SF-2300	$8.95	$7.95	$6.95
	15	0.008	SF-2315	$8.95	$7.95	$6.95

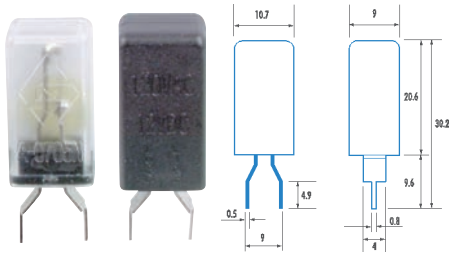
Electronic Components

PCB Mount Thermal Circuit Breakers (SPST)

Miniature auto-resetting thermal type units that solder directly into a PCB.

- Ideal for protecting power supplies, amplifier output transistors, appliances etc.
- Slow response time is ideal when capricious tripping would be a nuisance.
- Judicious selection of breaker rating will ensure protection without unnecessary tripping

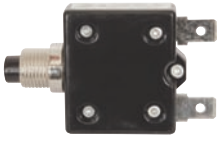
Specifications	
Calibration	100% rated; will not trip. (all at 25°C) 101-170% increasing likelihood of trip / 175-199% trip within 1 hour. 200% within 1 minute / 200% + from 1 minute to seconds.
Input	12VDC, 125VAC
Dielectric strength	1500VAC 1 Minute
Contact endurance	>1000 cycles, @ 150% of contact rating.



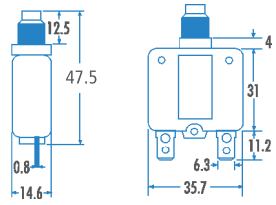
Rating (A)	Resistance (Ω)	Cat.	Qty 1+	Qty 10+	Qty 25+
1.5	0.12	SF-2281	$6.95	$6.25	$5.50
3	0.075	SF-2283	$6.95	$6.25	$5.50
4	0.050	SF-2284	$6.95	$6.25	$5.50
5	0.050	SF-2285	$6.95	$6.25	$5.50

Electrical Type Circuit Breaker

These circuit breakers are rated at 250VAC.



- Maximum voltage 250VAC or 50VDC
- Will hold 100% of rated current indefinitely at 25°C
- Will trip within one hour at 125% of load at 25°C
- Will trip within 4 seconds at 150% of rated load
- Mounting hole diameter 12mm

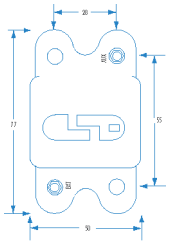


% of Rating	Seconds to Trip
125	100
150	20
200	10
250	6
300	5
350	3
400	2.5
450	2
500	1.5

Amp	Approval	Cat.	Qty 1+	Qty 10+	Qty 25+
3	CS8389N	SF-2252	$8.85	$7.75	$6.95
5	CS8389N	SF-2254	$8.85	$7.75	$6.95
10	CS8389N	SF-2258	$8.85	$7.75	$6.95
15	CS8389N	SF-2259	$8.85	$7.75	$6.95
20	CS8389N	SF-2260	$8.85	$7.75	$6.95
25	CS8389N	SF-2261	$8.85	$7.75	$6.95

High Current DC Circuit Breakers

Moulded in black electrical grade bakelite, these rugged and reliable devices allow you to simply reset rather than find another expensive fuse. They offer lower voltage drop than a fuse and can be used as an occasional circuit isolation switch. Two popular current ratings. Both units have the same physical dimensions. Ideal for car sound installations. Operating voltage is 12 to 14VDC. Each device will trip within a few milliseconds under short circuit conditions and feature protective rubber caps, test button and gold plated 5mm dia. terminals.



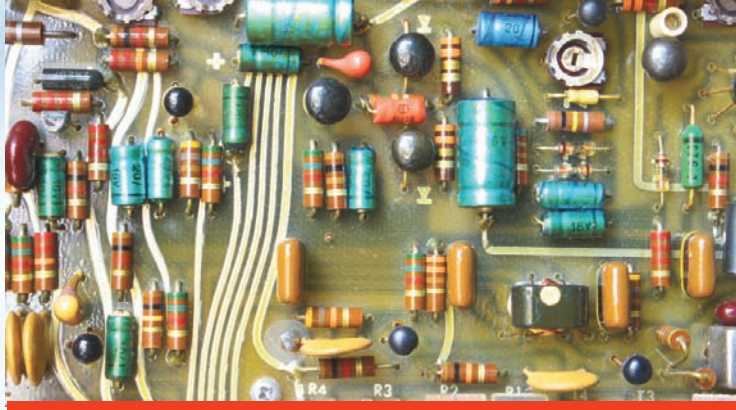
70A 12-14VDC

Will trip within 1 minute at 90A load. Will trip within a few milliseconds under short circuit conditions. Supplied with 5mm dia gold plated terminals with captive shakeproof washer and provision for up to 1/4" mounting bolts. Protective rubber caps for terminals. Test button on top of unit enables circuit breaker to be used as switch circuit restored with simple lever action.

100A 12-14VDC

Will trip at 110A or immediately under short circuit conditions

Rating (A)	Resistance (Ω)	Cat.	Qty 1+	Qty 10+	Qty 25+
70	0.12	SF-2265	$26.95	$23.95	$21.35
100	0.075	SF-2266	$26.95	$23.95	$21.35



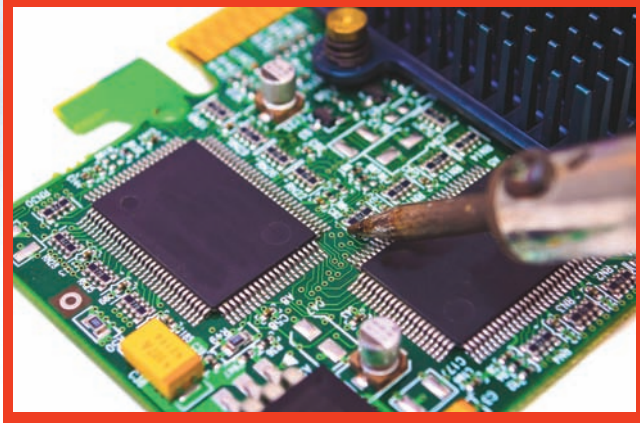
Year on year our electronics component section doesn't change much, resistors, capacitors, ferrites, potentiometers, knobs, LEDs, transistors, diodes and ICs. All great day to day products for our project builders.

We've tidied up the surface mount versions - removing a number of lines to make room for other products. In our Actives range for example, is a great new addition, the Atmel AVR Atmega328P Microcontroller (ZZ-8726) which can be used to build your own customised Arduino Compatible projects. It's located on page 202.

Happy Building...

P.S. Good News!

We've secured a container of electronic components from a 'fire sale' in the US (it just arrived). So watch out for our Bargain Bags - they'll be in-stores and on-line over the next couple of months.



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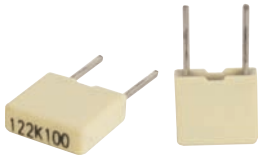
CAPACITORS

100VDC MKT Miniature Polyester

- Rated voltage: 100VDC working, 40VAC 50/60Hz

Capacitance	Width	Depth	Height (mm)
0.001 - 0.08µf	7.5	2.5	6.5
0.10 - 0.22µf	7.5	3.2	8
0.27 - 0.56µf	7.5	5	8
0.68µf	7.5	6	9.6
1.5µf	26	7	16



Value (µF)	(nF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.0010	1.0	5	RM-7010	$0.35	$0.24	$0.21
0.0012	1.2	5	RM-7012	$0.35	$0.24	$0.21
0.0015	1.5	5	RM-7015	$0.35	$0.24	$0.21
0.0022	2.2	5	RM-7022	$0.35	$0.24	$0.21
0.0027	2.7	5	RM-7027	$0.35	$0.24	$0.21
0.0033	3.3	5	RM-7033	$0.35	$0.24	$0.21
0.0039	3.9	5	RM-7039	$0.35	$0.24	$0.21
0.0047	4.7	5	RM-7047	$0.35	$0.24	$0.21
0.0068	6.8	5	RM-7055	$0.35	$0.24	$0.21
0.010	10	5	RM-7065	$0.35	$0.24	$0.21
0.012	12	5	RM-7070	$0.35	$0.24	$0.21
0.015	15	5	RM-7075	$0.35	$0.24	$0.21
0.018	18	5	RM-7080	$0.35	$0.24	$0.21
0.022	22	5	RM-7085	$0.35	$0.24	$0.21
0.033	33	5	RM-7095	$0.35	$0.24	$0.21
0.039	39	5	RM-7100	$0.35	$0.24	$0.21
0.047	47	5	RM-7105	$0.35	$0.24	$0.21
0.056	56	5	RM-7110	$0.35	$0.24	$0.21
0.068	68	5	RM-7115	$0.35	$0.24	$0.21
0.082	82	5	RM-7120	$0.40	$0.27	$0.24
0.10	100	5	RM-7125	$0.40	$0.27	$0.24
0.12	120	5	RM-7130	$0.40	$0.27	$0.24
0.15	150	5	RM-7135	$0.45	$0.30	$0.25
0.18	180	5	RM-7140	$0.45	$0.30	$0.25
0.22	220	5	RM-7145	$0.45	$0.30	$0.25
0.27	270	5	RM-7150	$0.65	$0.45	$0.37
0.33	330	5	RM-7153	$0.65	$0.45	$0.37
0.39	390	5	RM-7159	$0.65	$0.45	$0.37
0.47	470	5	RM-7165	$0.65	$0.45	$0.37
0.56	560	5	RM-7166	$0.85	$0.57	$0.50
0.68	680	5	RM-7168	$0.85	$0.57	$0.50
1.00	1000	5	RM-7170	$0.95	$0.65	$0.55
1.50	1500	23	RM-7172	$1.25	$0.85	$0.75

250VDC Metallised Polypropylene

- Ideal for speaker crossovers
- Axial

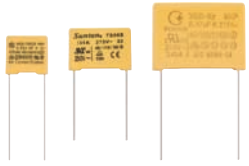
Metallised polypropylene dielectric offers stable capacitance over a wide temperature range. This, and the relatively high capacitance for size makes them ideal for high quality loudspeaker crossover networks.
Naturally, they are also suitable for other applications where a stable, non polarised capacitive component is required.

NOTE!
HIGH QUALITY

Value(µF)	W x D x H (mm)	Cat.	Qty 1+	Qty 5+	Qty 10+
1.0	25 x 15.9 x 8.4	RY-6950	$3.45	$2.30	$1.95
1.5	29 x 17.2 x 9.6	RY-6951	$4.45	$2.95	$2.60
2.2	32 x 19.2 x 10.1	RY-6952	$5.25	$3.60	$3.15
3.3	32 x 22.2 x 13.0	RY-6953	$6.95	$4.75	$4.15
4.7	32 x 22.0 x 15.0	RY-6954	$9.95	$6.75	$5.75
5.6	46 x 20.0 x 12.0	RY-6955	$10.95	$7.50	$6.50
6.8	46 x 22.2 x 14.3	RY-6956	$12.95	$8.95	$7.75
8.2	46 x 23.0 x 16.0	RY-6957	$14.95	$10.35	$8.75
10.	56 x 29.0 x 20.7	RY-6958	$16.95	$11.70	$9.95

250VAC - Metallised Polypropylene - X2 Style

Voltage rating: 275/250VAC
Capacitance tolerance: +/-10% std +/-5%
Operating temperature: -40°C to 85°C



Value(µF)	(nF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.010	10	10	RG-5230	$0.75	$0.50	$0.45
0.022	22	10	RG-5232	$0.75	$0.50	$0.45
0.047	47	15	RG-5234	$0.75	$0.50	$0.45
0.10	100	15	RG-5236	$0.95	$0.65	$0.55
0.22	220	22.5	RG-5238	$1.15	$0.80	$0.65
0.47	470	22.5	RG-5240	$2.95	$1.95	$1.75

Greencaps Polyester or Mylar

- Supplied loose
- Operating temperature: -40°C to +85°C

100VDC

Value(µF)	(nF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.0010	1.0	4	RG-5010	$0.25	$0.17	$0.15
0.0012	1.2	4	RG-5012	$0.25	$0.17	$0.15
0.0015	1.5	4	RG-5015	$0.25	$0.17	$0.15
0.0018	1.8	4	RG-5018	$0.25	$0.17	$0.15
0.0022	2.2	4	RG-5022	$0.25	$0.17	$0.15
0.0027	2.7	4	RG-5027	$0.25	$0.17	$0.15
0.0033	3.3	4	RG-5033	$0.25	$0.17	$0.15
0.0039	3.9	4	RG-5039	$0.25	$0.17	$0.15
0.0047	4.7	4	RG-5047	$0.25	$0.17	$0.15
0.0056	5.6	4	RG-5050	$0.25	$0.17	$0.15
0.0068	6.8	4	RG-5055	$0.25	$0.17	$0.15
0.0082	8.2	4	RG-5060	$0.25	$0.17	$0.15
0.010	10	4	RG-5065	$0.25	$0.17	$0.15
0.012	12	5	RG-5070	$0.25	$0.17	$0.15
0.015	15	5	RG-5075	$0.25	$0.17	$0.15
0.018	18	5	RG-5080	$0.25	$0.17	$0.15
0.022	22	5	RG-5085	$0.25	$0.17	$0.15
0.027	27	5	RG-5090	$0.25	$0.17	$0.15
0.033	33	5	RG-5095	$0.25	$0.17	$0.15
0.039	39	6	RG-5100	$0.25	$0.17	$0.15
0.047	47	6	RG-5105	$0.25	$0.17	$0.15
0.056	56	6	RG-5110	$0.25	$0.17	$0.15
0.068	68	7	RG-5115	$0.25	$0.17	$0.15
0.082	82	7	RG-5120	$0.25	$0.17	$0.15
0.10	100	7	RG-5125	$0.25	$0.17	$0.15
0.12	120	8	RG-5130	$0.25	$0.17	$0.15
0.15	150	9	RG-5135	$0.25	$0.17	$0.15
0.18	180	9	RG-5140	$0.25	$0.17	$0.15
0.22	220	9	RG-5145	$0.25	$0.17	$0.15
0.27	270	10	RG-5150	$0.35	$0.24	$0.21
0.33	330	11	RG-5153	$0.35	$0.24	$0.21

100VDC LARGE VALUES Suitable for speaker crossovers, etc.

Value(µF)	(nF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.47	470	11	RG-5165	$0.35	$0.24	$0.21
0.56	560	15	RG-5166	$0.50	$0.35	$0.30
0.68	680	11	RG-5168	$1.50	$1.05	$0.90
0.82	820	15	RG-5169	$1.50	$1.05	$0.90
1.00	1000	11	RG-5170	$1.75	$1.20	$1.05
1.50	1500	20	RG-5172	$2.75	$1.90	$1.65
2.20	2200	11	RG-5175	$2.25	$1.55	$1.35
3.30	3300	21	RG-5180	$2.25	$1.55	$1.35
4.70	4700	28	RG-5181	$4.50	$3.15	$2.60
10.00	10000	28	RG-5185	$8.95	$6.25	$5.25

630VDC

Value(µF)	(nF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.010	10	9	RG-5201	$0.45	$0.30	$0.25
0.022	22	9	RG-5202	$0.55	$0.37	$0.32
0.033	33	14	RG-5203	$0.85	$0.57	$0.50
0.047	47	10	RG-5204	$0.85	$0.57	$0.50
0.047	47	14	RG-5205	$0.85	$0.57	$0.50
0.10	100	14	RG-5210	$1.25	$0.85	$0.75
0.22	220	14	RG-5222	$1.25	$0.85	$0.75
0.47	470	26	RG-5247	$1.75	$1.20	$1.05

TECH TIP

Capacitor Quick Reference Chart

Use	Cap.	Cat.	Page
RF	Ceramic	RC-5XXX	184
AUDIO	MKT	RM-7XXX	183
SMPS	Low ESR	RE-63XX	186
PSU	Electrolytic	RE-60XX	185
CROSSOVER	Poly/Electrolytic	RY-69XX	185
MOTOR	Motor Start	RU-66XX	185

These offer low cost and high capacitance in a small physical size. Normally there are two types, the 'High Stability Temperature Compensating' type and the 'Bypass and Coupling' type. The former for use in resonant circuit and filter applications, with a value largely independent of voltage and frequency. The latter is for use in less critical applications, as they are less stable and have non-linear temperature characteristics and are somewhat voltage dependent.

Polyester:
These type offer good stability, a large range of values at low cost, and are the most widely used capacitor for general purpose.

Polycarbonate:
These have a low temperature coefficient, low dielectric loss at high frequency and excellent temperature stability characteristics.

Polystyrene:
These offer tight tolerance and are highly stable; making them suitable for very stable tuned circuits and oscillators.

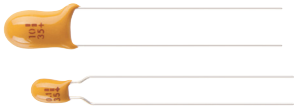
Polypropylene:
This type has a very low dielectric loss and are particularly suitable in audio circuits and sample-and-hold circuits.

Mylar:
This is the Du Pont tradename for polyester. They usually have an aluminium film deposit on the dielectric and are called "metallised polyester".

Capacitors

CAPACITORS (CONTINUED)

Tag Tantalum Thru-Hole



- Resin dipped case
- Price per each
- 5mm lead spacing

16V

Value(µF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
4.7	5.0	RZ-6636	$0.60	$0.40	$0.35
6.8	5.0	RZ-6642	$0.95	$0.65	$0.55
10	5.0	RZ-6648	$0.95	$0.65	$0.55
15	5.0	RZ-6657	$0.95	$0.65	$0.55
22	5.0	RZ-6658	$0.95	$0.65	$0.55
33	5.0	RZ-6665	$2.25	$1.55	$1.35
47	5.0	RZ-6670	$1.95	$1.35	$1.15

25V

Value(µF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
1.0	5.0	RZ-6627	$0.60	$0.40	$0.35
10	5.0	RZ-6650	$0.95	$0.65	$0.55

35V

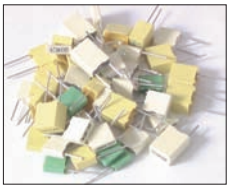
Value(µF)	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.10	5.0	RZ-6620	$0.60	$0.40	$0.35
0.22	5.0	RZ-6622	$0.60	$0.40	$0.35
0.33	5.0	RZ-6624	$0.60	$0.40	$0.35
0.47	5.0	RZ-6626	$0.60	$0.40	$0.35
1.0	5.0	RZ-6628	$0.60	$0.40	$0.35
1.5	5.0	RZ-6630	$0.60	$0.40	$0.35
2.2	5.0	RZ-6632	$0.60	$0.40	$0.35
4.7	5.0	RZ-6640	$0.75	$0.50	$0.45
6.8	5.0	RZ-6645	$0.95	$0.65	$0.55
10	5.0	RZ-6655	$0.95	$0.65	$0.55

PROTOTYPE PACKS - CAPACITORS

- Ideal for prototyping

CAT. RC-5399
CERAMIC PACK OF 60

CAT. RG-5199
100V GREENPACK PACK OF 60



CAT. RM-7190
MKT PACK OF 50

CAT. RE-6250
ELECTROLYTIC PACK OF 55

SMD ELECTROLYTIC PACK OF 50
- 20 values

Cat. RE-5959

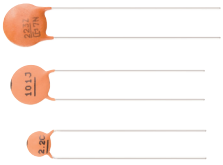
SMD TANTALUM PACK OF 30
- 20 values

Cat. RZ-6618

Value(µF)	Pack	Cat.	Qty 1+	Qty 25+	Qty 100+
10pF to 0.10µF	60	RC-5399	$7.95	$5.50	$4.75
0.001 to 0.22	60	RG-5199	$9.50	$6.50	$5.50
0.001 to 0.47	50	RM-7190	$12.50	$8.75	$7.50
1 to 470	55	RE-6250	$11.95	$10.70	$9.50
4.7 to 470	50	RE-5959	$12.95	$8.95	$7.75
0.1 to 100	30	RZ-6618	$12.95	$8.95	$7.75

50V Ceramic

1pF - 10pF ± 1/4pF
12pF - 100pF ± 5%
120pF - 0.022µF ± 10% (Y5P)
0.033µF - 0.1µF ± 20% (Y5U)



- 5mm lead spacing
- Low inductance

Value (pF)	Cat. Pkt 2	Value	Cat. Pkt 2
1.0	RC-5300	120pF	RC-5325
1.2	RC-5301	150pF	RC-5326
1.5	RC-5302	180pF	RC-5327
1.8	RC-5303	220pF	RC-5328
2.2	RC-5304	270pF	RC-5329
2.7	RC-5305	330pF	RC-5330
3.3	RC-5306	390pF	RC-5331
3.9	RC-5307	470pF	RC-5332
4.7	RC-5308	560pF	RC-5333
5.6	RC-5309	680pF	RC-5334
6.8	RC-5310	820pF	RC-5335
8.2	RC-5311	1000pF	RC-5336
10	RC-5312	2200pF	RC-5340
12	RC-5313	3300pF	RC-5342
15	RC-5314	4700pF	RC-5344
18	RC-5315	5600pF	RC-5345
22	RC-5316	6800pF	RC-5346
27	RC-5317	8200pF	RC-5347
33	RC-5318	0.01µF	RC-5348
39	RC-5319	0.022µF	RC-5352
47	RC-5320	0.033µF	RC-5354
56	RC-5321	0.047µF	RC-5356
68	RC-5322	0.1µF	RC-5360
82	RC-5323		
100	RC-5324		

Pkt 2	Qty 1+	Qty 25+	Qty 100+
All RC Cat Nos (Pkt 2)	$0.32	$0.22	$0.19

0.22 µF 220N Lead spacing 5mm

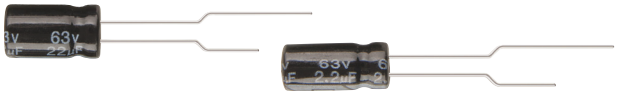
	Cat.	Qty 1+	Qty 25+	Qty 100+
(Each)	RC-5364	$0.50	$0.35	$0.30

50VDC Monolithic

Lead spacing 5mm, low impedance

Value (µF)	Pkt	Cat.	Qty 1+	Qty 25+	Qty 100+
0.01	each	RC-5480	$0.28	$0.19	$0.16
0.022	each	RC-5482	$0.28	$0.19	$0.16
0.047	each	RC-5486	$0.28	$0.19	$0.16
0.10	each	RC-5490	$0.28	$0.19	$0.16
0.10	100	RC-5496	$7.95	$5.50	$4.75
0.22	each	RC-5494	$0.32	$0.22	$0.19
0.47	each	RC-5498	$0.60	$0.40	$0.35
1.0	each	RC-5499	$0.60	$0.40	$0.35

50VDC Bi-Polar RB Electrolytic - 85°C



Value	Size (mm)	Pitch (mm)	Ripple (mA)	Cat.	Qty 1+	Qty 25+	Qty 100+
1.0µF	5 x 11	2.0	8	RY-6802	$0.48	$0.32	$0.27
2.2µF	5 x 11	2.0	20	RY-6804	$0.48	$0.32	$0.27
3.3µF	5 x 11	2.0	25	RY-6805	$0.48	$0.32	$0.27
4.7µF	5 x11	2.0	30	RY-6806	$0.48	$0.32	$0.27
6.8µF	5 x 11	2.0	40	RY-6808	$0.48	$0.32	$0.27
10µF	6.3 x 11	2.5	48	RY-6810	$0.48	$0.32	$0.27
22µF	8 x 11	3.5	82	RY-6816	$0.85	$0.57	$0.50
33µF	8 x 11	3.5	98	RY-6818	$0.95	$0.65	$0.55
47µF	8 x 11	3.5	140	RY-6820	$1.35	$0.90	$0.80
100µF	10 x 20	5.0	245	RY-6825	$2.45	$1.70	$1.45

3kV High Voltage Ceramic

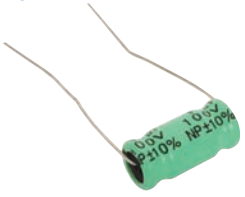
Value 0.01µF.

Value(µF)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.01	RC-5380	$2.50	$1.75	$1.50

CAPACITORS (CONTINUED)

100VDC Non-Polarised Crossover Type - 85°C

This range is ideal for crossover networks and will handle high power but are suitable for other applications of course. The range includes large values - up to 400µF, (required for subwoofers). All capacitors have RT or axial leads.



Value µF	Ø x L (mm)	Cat.	Qty 1+	Qty 5+	Qty 10+
1	8 x 17	RY-6901	$1.85	$1.25	$1.10
2.2	8 x 17	RY-6902	$1.85	$1.25	$1.10
3.3	8 x 19	RY-6903	$1.95	$1.35	$1.15
4.7	8 x 19	RY-6904	$1.95	$1.35	$1.15
6.8	10 x 19	RY-6906	$2.25	$1.55	$1.35
10	10 x 19	RY-6908	$2.25	$1.55	$1.35
15	10 x 19	RY-6910	$2.45	$1.70	$1.45
22	10 x 24	RY-6912	$2.85	$1.95	$1.70
33	13 x 27	RY-6914	$3.45	$2.30	$1.95
47	13 x 32	RY-6916	$4.45	$2.95	$2.60
68	16 x 34	RY-6918	$4.95	$3.45	$2.90
100	16 x 34	RY-6920	$6.45	$4.45	$3.75
150	18 x 38	RY-6924	$9.95	$6.75	$5.75
220	18 x 44	RY-6928	$11.95	$8.25	$6.95
300	22 x 44	RY-6932	$16.95	$11.70	$9.95
400	22 x 44	RY-6936	$18.95	$12.95	$11.35

2.5V Super Capacitors - 22 & 55 Farad

These specially engineered capacitors are actually a high-tech energy storage device - not the standard capacitors which they look identical to. Using a new combination manufacturing process where nano surface structured carbon is combined with organic electrolytes, this technique enables these capacitors to store 1,000 times the energy of a standard electrolytic capacitor. The main applications are energy storage at a circuit board level replacing the bulkier secondary batteries which are currently used. Essentially anywhere high energy storage is needed.

- High density of energy
- Long lifetime (10 years)
- High cycle life (over 500,000 cycles)

RE-6704

RE-6702

Value F	Ø x H (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
22	12 x 25	RE-6702	$12.95	$8.95	$7.75
55	18 x 40	RE-6704	$16.95	$11.70	$9.95

5.5V Super Capacitor - 0.047 Farad & 1 Farad

Super capacitors are a standby power source capable of providing up to 30 days back-up voltage & current to CMOS RAMs during power failures. Never needs replacing or maintenance

- Can be soldered onto PCBs
- Can be charged at high & low current rates i.e. microamps to amps
- 5mm lead spacing

Value F	Ø x H (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
0.047	13 x 7.5	RU-6700	$5.50	$3.75	$3.30
1.0	20 x 7.5	RU-6705	$4.95	$3.45	$2.90

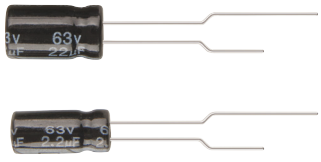
Motor Start Capacitors

We have sourced a range of motor start capacitors necessary for starting single phase induction motors. These are suitable for motors operating at up to 400VAC and common values are offered here.

Please note it is important to choose the correct value for the motor otherwise the starting torque of the motor will change.
Two different packages are provided. For the higher valued capacitors it's necessary to use the different case style which provides the important AMP250A terminals and an inbuilt safety device.

Capacitance (µF)	W x D x H (mm)	Cat	Qty 1+	Qty 25+	Qty 100+
6.0	49 x 21 x 31	RU-6600	$14.95	$10.35	$8.75
10	50 x 25 x 36	RU-6602	$14.95	$10.35	$8.75
12	50 x 30 x 40	RU-6604	$14.95	$10.35	$8.75
20	40 x 75	RU-6606	$14.95	$10.35	$8.75
30	40 x 95	RU-6608	$14.95	$10.35	$8.75

PC Mount RB Electrolytic - 105°C



10V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current mA	Cat.	Qty 1+	Qty 25+	Qty 100+
220	5.0	6.5 x 11	180	RE-6157	$0.30	$0.21	$0.18

16V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current mA	Cat.	Qty 1+	Qty 25+	Qty 100+
10	2.0	5 x 11	45	RE-6066	$0.26	$0.18	$0.15
22	2.0	5 x 11	60	RE-6079	$0.26	$0.18	$0.15
47	2.0	5 x 11	100	RE-6100	$0.30	$0.21	$0.18
100	2.5	6.3 x 11	170	RE-6130	$0.30	$0.21	$0.18
220	3.5	8 x 12	280	RE-6158	$0.35	$0.24	$0.21
330	3.5	8 x 12	360	RE-6188	$0.45	$0.30	$0.25
470	3.5	8 x 16	460	RE-6194	$0.55	$0.37	$0.32
1000	5.0	10 x 16	760	RE-6220	$0.80	$0.55	$0.45
2200	5.0	13 x 23	1250	RE-6238	$0.95	$0.65	$0.55
4700	7.5	16 x 26	1960	RE-6243	$1.80	$1.25	$1.05

25V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current mA	Cat.	Qty 1+	Qty 25+	Qty 100+
10	2.0	5 x 11	45	RE-6070	$0.30	$0.21	$0.18
22	2.0	5 x 11	70	RE-6090	$0.30	$0.21	$0.18
33	2.0	5 x 11	95	RE-6095	$0.30	$0.21	$0.18
47	2.5	5 x 11	120	RE-6110	$0.30	$0.21	$0.18
100	2.5	6.3 x 11	180	RE-6140	$0.40	$0.27	$0.24
220	3.5	8 x 12	320	RE-6160	$0.40	$0.27	$0.24
330	5.0	10 x 13	420	RE-6190	$0.65	$0.45	$0.37
470	5.0	10 x 16	540	RE-6195	$0.70	$0.47	$0.40
1000	5.0	13 x 20	900	RE-6230	$1.05	$0.70	$0.60
2200	5.0	13 x 26	1460	RE-6240	$1.35	$0.90	$0.80
4700	7.5	16 x 35	2150	RE-6244	$2.85	$1.95	$1.70

50V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current mA	Cat.	Qty 1+	Qty 25+	Qty 100+
4µ7	2.0	5 x 11	35	RE-6058	$0.28	$0.19	$0.16
220	5.0	10 x 17	430	RE-6180	$0.90	$0.60	$0.52
2200	7.5	16 x 35	1900	RE-6241	$2.95	$1.95	$1.75
4700	10	22 x 40	2280	RE-6245	$5.10	$3.45	$2.95

63V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current (mA)	Cat.	Qty 1+	Qty 25+	Qty 100+
µ47	2.0	5 x 11	8	RE-6020	$0.26	$0.18	$0.15
1µ	2.0	5 x 11	15	RE-6032	$0.26	$0.18	$0.15
2µ2	2.0	5 x 11	22	RE-6042	$0.26	$0.18	$0.15
3µ3	2.0	5 x 11	30	RE-6045	$0.26	$0.18	$0.15
4µ7	2.0	5 x 11	40	RE-6060	$0.30	$0.21	$0.18
10	2.0	5 x 11	65	RE-6075	$0.30	$0.21	$0.18
22	2.5	6.3 x 11.5	100	RE-6080	$0.30	$0.21	$0.18
47	3.5	8 x 12	180	RE-6122	$0.40	$0.27	$0.24
100	5.0	8 x 16	280	RE-6150	$0.75	$0.50	$0.45
470	5.0	13 x 25	880	RE-6210	$1.30	$0.90	$0.75
1000	7.5	16 x 26	1400	RE-6236	$2.05	$1.40	$1.20

TECH TIP

105°C Electrolytic Capacitors

Our range of RB PC mount electrolytics up to 63 Volt are 105°C rated. This makes for more reliable service. Consider this when making price comparisons with competitors' 85°C products.

PC Mount RB Electrolytic - 85°C

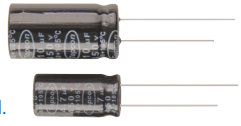
35V

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current mA	Cat.	Qty 1+	Qty 25+	Qty 100+
22	5.0	5 x 11	80	RE-6092	$0.30	$0.21	$0.18

Capacitors

CAPACITORS (CONTINUED)

High Voltage RB Electrolytic



- 85°C rated

450V

* RE-6156 is 400V rated.

Value (µF)	Pitch (mm)	Ø x H (mm)	Ripple Current (mA)	Cat.	Qty 1+	Qty 25+	Qty 100+
1	3.5	10 x 14.5	12	RE-6034	$1.50	$1.05	$0.90
2µ2	5.0	10 x 17	28	RE-6044	$1.50	$1.05	$0.90
4µ7	5.0	10 x 20.5	48	RE-6062	$2.25	$1.55	$1.35
10	5.0	13 x 21.5	75	RE-6078	$3.00	$2.07	$1.80
47	8.0	17.5 x 36	285	RE-6125	$6.50	$4.45	$3.90
100	13	18 x 42.5	521	RE-6156*	$7.20	$4.95	$4.30

Low ESR Capacitors

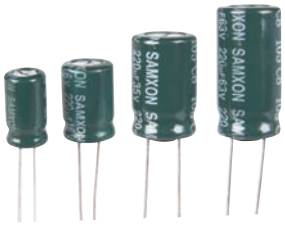
ESR means Equivalent Series Resistance.

Ordinary electrolytics are constructed in such a way that they can be quite "leaky", i.e. will conduct a small amount of DC current. They also have a fairly high impedance. This is not a problem if they are just used to filter 50 or 100Hz pulsating DC in a linear power supply. It is a problem if there is a high repetition pulse on, say, a switchmode DC supply line that needs to be filtered. A pulse train of, say, 50kHz will be virtually "ignored" by a standard electrolytic. A low ESR device has the ability to integrate the pulses into a smooth DC rail, and as a bonus not heat up in the process.

Low Impedance* or ESR[1] Capacitors

Stable, low impedance characteristics
High ripple current**
Low DC leakage current
Extended life - high reliability withstanding 2,000 to 4,000 hours load life at 105°C
Radial leads on standard pitch

*Impedance: max at 20°C 100kHz
**Ripple current measured at 105°C 100kHz.
[1]Equivalent Series Resistance



10VDC

Value (µF)	Ø x H (mm)	Impedance Ω*	Ripple Current (mA) RMS	Cat.	Qty 1+	Qty 25+	Qty 100+
220	6.3 x 12	0.22	340	RE-6300	$0.36	$0.25	$0.21
470	8 x 11	0.13	640	RE-6302	$0.44	$0.39	$0.35
1000	10 x 16	0.06	1210	RE-6304	$0.75	$0.50	$0.45
2200	10 x 16	0.05	1900	RE-6306	$1.15	$0.80	$0.65
4700	13 x 24	0.028	2552	RE-6308	$1.95	$1.35	$1.15

16VDC

Value (µF)	Ø x H (mm)	Impedance Ω*	Ripple Current (mA) RMS	Cat.	Qty 1+	Qty 25+	Qty 100+
100	6.3 x 11	0.22	340	RE-6310	$0.36	$0.30	$0.27
220	8 x 11	0.13	640	RE-6312	$0.40	$0.27	$0.24
470	8 x 16	0.087	840	RE-6314	$0.75	$0.65	$0.60
1000	10 x 20	0.046	1400	RE-6316	$1.10	$0.75	$0.65
2200	16 x 25	0.035	2210	RE-6318	$1.40	$0.95	$0.80
4700	16 x 32	0.022	3029	RE-6320	$2.50	$1.75	$1.50

25VDC

Value (µF)	Ø x H (mm)	Impedance Ω*	Ripple Current (mA) RMS	Cat.	Qty 1+	Qty 25+	Qty 100+
100	8 x 11	0.22	340	RE-6322	$0.44	$0.39	$0.35
220	8 x 12	0.13	640	RE-6324	$0.44	$0.39	$0.35
470	10 x 16	0.060	1210	RE-6326	$0.84	$0.75	$0.65
1000	13 x 20	0.035	1900	RE-6328	$1.30	$0.90	$0.75
2200	16 x 25	0.022	2743	RE-6330	$1.65	$1.15	$0.95

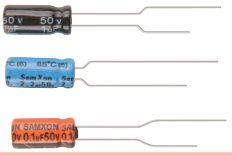
35VDC

Value (µF)	Ø x H (mm)	Impedance Ω*	Ripple Current (mA) RMS	Cat.	Qty 1+	Qty 25+	Qty 100+
47	6.3 x 11	0.22	340	RE-6332	$0.36	$0.30	$0.27
100	8 x 11	0.13	640	RE-6334	$0.44	$0.39	$0.35
220	10 x 16	0.09	840	RE-6336	$0.70	$0.47	$0.40
470	10 x 20	0.046	1400	RE-6338	$1.20	$0.80	$0.70
1000	16 x25	0.035	2552	RE-6340	$1.65	$1.15	$0.95

63VDC

Value (µF)	Ø x H (mm)	Impedance Ω*	Ripple Current (mA) RMS	Cat.	Qty 1+	Qty 25+	Qty 100+
22	6.3 x 11	0.70	180	RE-6342	$0.36	$0.30	$0.27
47	8 x 11.5	0.30	295	RE-6344	$0.44	$0.39	$0.35
100	10 x 20	0.12	760	RE-6346	$0.84	$0.75	$0.65
220	10 x 20	0.060	1220	RE-6348	$1.10	$0.75	$0.65
470	16 x 20	0.043	1690	RE-6350	$1.50	$1.05	$0.90

RBLL Low Leakage Electrolytic



- 85°C rated
- Leakage characteristic similar to tantalum caps, but at a lower price

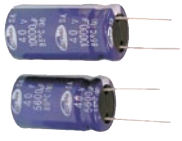
25V

Value (µF)	Lead (mm) Spacing	Size (mm) Ø x H	Cat.	Qty 1+	Qty 25+	Qty 100+
22	2.5	6.3 x 11	RL-6430	$0.55	$0.37	$0.32
33	2.5	6.3 x 11	RL-6432	$0.55	$0.37	$0.32
47	3.5	8 x 12	RL-6434	$0.70	$0.47	$0.40
100	3.5	8 x 12	RL-6436	$0.95	$0.65	$0.55

50V

Value (µF)	Lead (mm) Spacing	Size (mm) Ø x H	Cat.	Qty 1+	Qty 25+	Qty 100+
0µ1	2.0	5 x 11	RL-6402	$0.40	$0.27	$0.24
0µ22	2.0	5 x 11	RL-6406	$0.40	$0.27	$0.24
0µ33	2.0	5 x 11	RL-6408	$0.40	$0.27	$0.24
0µ47	2.0	5 x 11	RL-6410	$0.40	$0.27	$0.24
0µ68	2.0	5 x 11	RL-6412	$0.40	$0.27	$0.24
1µ0	2.0	5 x 11	RL-6414	$0.40	$0.27	$0.24
1µ5	2.0	5 x 11	RL-6418	$0.40	$0.27	$0.24
2µ2	2.0	5 x 11	RL-6420	$0.40	$0.27	$0.24
3µ3	2.0	5 x 11	RL-6422	$0.40	$0.27	$0.24
4µ7	2.0	5 x 11	RL-6424	$0.40	$0.27	$0.24
10	2.5	6.3 x 11	RL-6428	$0.55	$0.37	$0.32

RP Electrolytic



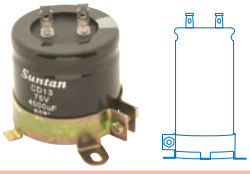
This style of capacitor is distinguished because, whilst bulky, does not need a chassis clamp. Fixing is by the stout lead wires. While soldered retention is generally adequate. For applications where vibration is an issue a dab of silicone under the component is recommended.

- 85°C rated

40V

Value (µF)	Ripple Current(A)	Size (mm)	Rated	Cat.	Qty 1+	Qty 25+	Qty 100+
5600	2.4	26 x 42	85°C	RU-6709	$7.95	$5.50	$4.75
10000	2.7	26 x 51	85°C	RU-6720	$9.95	$6.75	$5.75

RG Chassis Mount Electrolytic



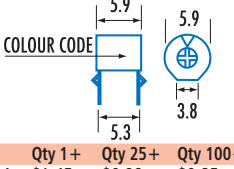
- 85°C rated

Value (µF)	Voltage (V)	Ripple Current(A)	Size (mm) Ø x H	Cat.	Qty 1+	Qty 25+	Qty 100+
4000	75	4.6	35 x 51	RU-6708	$9.95	$6.75	$5.75
8000	80	3.47	35 x 76	RU-6710	$12.95	$8.95	$7.75
10000	100	8.1	50 x 80	RU-6712	$24.95	$17.35	$14.70

All supplied with mounting bracket. Height and diameter column excludes lugs - 8mm.

TRIMMER

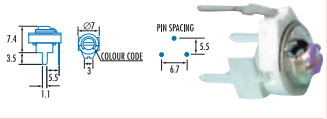
Specifications	
Working Voltage	50V DC
Insulation Resistance	>104MΩ min @ 250VDC
Operating Temp	-30°C to +85
Withstand Voltage	110VDC
Turning Torque	20 to 200gr/cm



Capacitance(pF)	Temp Coeff	Colour	Cat.	Qty 1+	Qty 25+	Qty 100+
3-10	N470	White	RV-5714	$1.45	$0.99	$0.85
6.2-30	N750	Green	RV-5716	$1.45	$0.99	$0.85
6.8-40	N1200	Yellow	RV-5718	$1.45	$0.99	$0.85
9.8-50	N1200	Brown	RV-5720	$1.45	$0.99	$0.85

8.5-100pF Ceramic Trimmer

Specifications	
Working voltage	225VDC.
Insulation resistance	>104MΩ min at 250VDC.
Withstand voltage	500VDC.
Temperature coefficient	N2200.
Colour	Purple



Capacitance(pF)	Voltage	Cat.	Qty 1+	Qty 25+	Qty 100+
8.5-100	225VDC	RV-5722	$2.25	$1.55	$1.35

RESISTORS

0.5W 1% METAL FILM MINI SIZE

Same size as standard 1/4W Carbon Film.

Pkt 8 (one value)	Qty 1+	Qty 25+	Qty 100+
	$0.46	$0.41	$0.37

0.25W CARBON FILM

5% , available from 1Ω to 8.2Ω & 1.2MΩ to 10MΩ.
Use Mini Metal Film for other values.

Pkt 8 (one value)	Qty 1+	Qty 25+	Qty 100+
	$0.40	$0.36	$0.32

1W CARBON FILM 5%

Pkt 2 (one value)	Qty 1+	Qty 25+	Qty 100+
	$0.44	$0.40	$0.36

5W WIREWOUND

Each (one value)	Qty 1+	Qty 25+	Qty 100+
	$0.40	$0.27	$0.24

10W WIREWOUND

Each (one value)	Qty 1+	Qty 25+	Qty 100+
	$1.60	$1.10	$0.95

Welwyn Open Air Resistor
OAR3-R010FI 0R010 3W 1%

This is used as a PCB mount current shunt/sense (resistor) up to about 20A. It is a very stable (extremely low temp drift), high tolerance (1%), low inductance (<10nH) shunt resistor that can be used in many high current sense applications: motor current sense, regulated power supplies, power amplifier current sense, battery current sense. See website for datasheet.

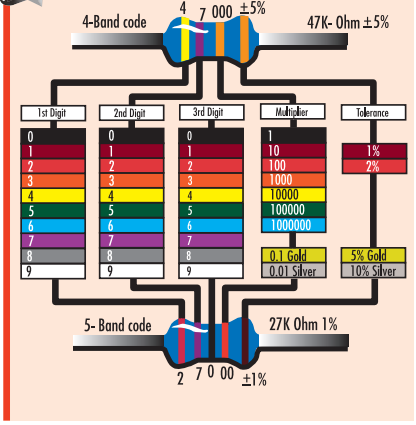
- Sold individually

Specifications	
Power	3W
Resistance	0.01ohm
Tolerance	+/- 1%
Dimensions	15.2(L) x 25.4(H)mm

MORE INFO WEB

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-3420	$1.90	$1.30	$1.10

TECH TIP



	1% Metal A (1/2W)	5% Carbon B (1/4W)	5% Carbon C (1W)	5% Wirewound D (5W)	5% Wirewound E (10W)
0R0		RR-1500			
0R1				RR-3206	
0R22				RR-3208	
0R47				RR-3214	
0R75					
0R82					
1R0		RR-1502	RR-2502	RR-3220	RR-3340
1R2		RR-1504	RR-2504		
1R5		RR-1506	RR-2506	RR-3230	
1R8		RR-1508	RR-2508	RR-3232	
2R2		RR-1510	RR-2510	RR-3234	RR-3344
2R7		RR-1512	RR-2512	RR-3236	
3R3		RR-1514	RR-2514	RR-3238	RR-3346
3R9		RR-1516	RR-2516	RR-3240	RR-3347
4R7		RR-1518	RR-2518	RR-3242	RR-3348
5R6		RR-1520	RR-2520	RR-3244	RR-3349
6R8		RR-1522	RR-2522	RR-3246	RR-3350
8R2		RR-1524	RR-2524	RR-3248	RR-3351
10R	RR-0524		RR-2526	RR-3250	RR-3352
11R	RR-0525				
12R	RR-0526		RR-2528	RR-3252	RR-3353
13R	RR-0527				
15R	RR-0528		RR-2530	RR-3254	RR-3354
16R	RR-0529				
18R	RR-0530		RR-2532	RR-3256	RR-3355
20R	RR-0531				
22R	RR-0532		RR-2534	RR-3258	RR-3356
24R	RR-0533				
27R	RR-0534		RR-2536	RR-3260	RR-3357
30R	RR-0535				
33R	RR-0536		RR-2538	RR-3262	
36R	RR-0537				
39R	RR-0538		RR-2540	RR-3264	
43R	RR-0539				
47R	RR-0540		RR-2542	RR-3266	RR-3360
51R	RR-0541				
56R	RR-0542		RR-2544	RR-3268	
62R	RR-0543				
68R	RR-0544		RR-2546	RR-3270	RR-3362
75R	RR-0545				
82R	RR-0546		RR-2548	RR-3272	
91R	RR-0547				
100R	RR-0548		RR-2550	RR-3274	RR-3364
110R	RR-0549				
120R	RR-0550		RR-2552	RR-3276	
130R	RR-0551				
150R	RR-0552		RR-2554	RR-3278	
160R	RR-0553				
180R	RR-0554		RR-2556	RR-3280	
200R	RR-0555				
220R	RR-0556		RR-2558	RR-3282	
240R	RR-0557				
270R	RR-0558		RR-2760	RR-3284	RR-3369
300R	RR-0559				
330R	RR-0560		RR-2762	RR-3286	
360R	RR-0561				
390R	RR-0562		RR-2764	RR-3288	
430R	RR-0563				
470R	RR-0564		RR-2766	RR-3290	RR-3372
510R	RR-0565				
560R	RR-0566		RR-2768	RR-3292	
620R	RR-0567				
680R	RR-0568		RR-2770	RR-3294	
750R	RR-0569				
820R	RR-0570		RR-2772	RR-3296	RR-3375
910R	RR-0571				
1K0	RR-0572		RR-2774	RR-3298	
1K1	RR-0573				
1K2	RR-0574		RR-2776		
1K3	RR-0575				
1K5	RR-0576		RR-2778	RR-3302	
1K6	RR-0577				
1K8	RR-0578		RR-2780		
2K0	RR-0579				
2K2	RR-0580		RR-2782	RR-3306	
2K4	RR-0581				
2K7	RR-0582		RR-2784		
3K0	RR-0583				
3K3	RR-0584		RR-2786	RR-3310	
3K6	RR-0585				
3K9	RR-0586		RR-2788		
4K3	RR-0587				
4K7	RR-0588		RR-2790	RR-3312	

	1% Metal A (1/2W)	5% Carbon B (1/4W)	5% Carbon C (1W)
5K1	RR-0589		
5K6	RR-0590		RR-2792
6K2	RR-0591		
6K8	RR-0592		RR-2794
7K5	RR-0593		
8K2	RR-0594		RR-2796
9K1	RR-0595		
10K	RR-0596		RR-2798
11K	RR-0597		
12K	RR-0598		RR-2800
13K	RR-0599		
15K	RR-0600		RR-2802
16K	RR-0601		
18K	RR-0602		RR-2804
20K	RR-0603		
22K	RR-0604		RR-2806
24K	RR-0605		
27K	RR-0606		RR-2808
30K	RR-0607		
33K	RR-0608		RR-2810
36K	RR-0609		
39K	RR-0610		RR-2812
43K	RR-0611		
47K	RR-0612		RR-2814
51K	RR-0613		
56K	RR-0614		RR-2816
62K	RR-0615		
68K	RR-0616		RR-2818
75K	RR-0617		
82K	RR-0618		RR-2820
91K	RR-0619		
100K	RR-0620		RR-2822
110K	RR-0621		
120K	RR-0622		RR-2824
130K	RR-0623		
150K	RR-0624		RR-2826
160K	RR-0625		
180K	RR-0626		RR-2828
200K	RR-0627		
220K	RR-0628		RR-2830
240K	RR-0629		
270K	RR-0630		RR-2832
300K	RR-0631		
330K	RR-0632		RR-2834
360K	RR-0633		
390K	RR-0634		RR-2836
430K	RR-0635		
470K	RR-0636		RR-2838
510K	RR-0637		
560K	RR-0638		RR-2840
620K	RR-0639		
680K	RR-0640		RR-2842
750K	RR-0641		
820K	RR-0642		RR-2844
910K	RR-0643		
1M0	RR-0644		RR-2846
1M2		RR-1650	RR-2848
1M5		RR-1652	RR-2850
1M8		RR-1654	
2M2		RR-1656	RR-2854
2M7		RR-1658	
3M3		RR-1660	RR-2858
3M9		RR-1662	RR-2860
4M7		RR-1664	RR-2862
5M6		RR-1666	RR-2864
6M8		RR-1668	
8M2		RR-1670	RR-2868
10M	RR-0660	RR-1672	RR-2870

TECH TIP!

BUY A LOT OF RESISTORS?

Check out our economical pack deals on the next page.

TECH TIP!

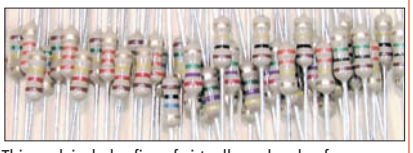
Selecting a resistor to power a LED? See page 205 for our selection guide.

Resistors & Trimpots

PROTOTYPE RESISTOR PACKS

0.25 Watt Carbon Film Resistors

300 Pieces



This pack includes five of virtually each value from 1 Ω to 10 Meg. Sixty different values. All resistors are bandoleered for easy sorting. Values supplied are 1Ω, 1.5, 2.2, 3.3, 4.7, 5.6, 10, 12, 15, 22, 27, 33, 39, 47, 56, 68, 82, 100, 120, 180, 220, 270, 330, 470, 560, 680, 820, 1k, 1k2, 1k5, 1k8, 2k2, 3k3, 3k9, 4k7, 5k6, 8k2, 10k, 12k, 15k, 18k, 22k, 27k, 33k, 39k, 47k, 56k, 68k, 82k, 100k, 120k, 150k, 220k, 270k, 330k, 470k, 1M, 2M7, 4M7 & 10M.

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-1680	$6.95	$4.75	$4.15

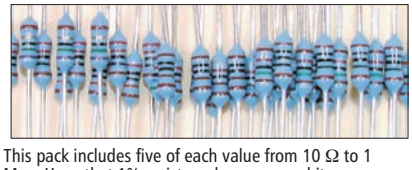
Ultimate Resistor Pack

Top quality, guaranteed1/4 watt 5% miniature sized carbon film. In fact, they look like 1/8W, they are so small. This pack gives you almost every resistor in the E24 range (eg. 1.8K, 2.0K, 2.2K). You get 10 of every value, a total of 170 values, 1700 resistors in all and they are bandoleered for easy sorting.

Buy this pack and you should NEVER be short of any resistor again. Massive savings over normal costs.

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-2000	$29.95	$20.70	$17.70

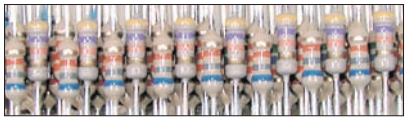
0.5W 1% Mini Size Metal Film Pack



This pack includes five of each value from 10 Ω to 1 Meg. Have that 1% resistor when you need it.
Five of each of the following values supplied.
10Ω, 12, 15, 22, 27, 33, 39, 47, 56, 68, 75, 82, 100, 120, 180, 220, 270, 330, 390, 470, 560, 680, 820, 910, 1k, 1k2, 1k8, 2k2, 3k3, 3k9, 4k7, 5k6, 6k8, 8k2, 10k, 12k, 15k, 18k, 22k, 27k, 33k, 39k, 47k, 56k, 68k, 82k, 91k, 100k, 120k, 150k, 180k, 200k, 220k, 270k, 330k, 390k, 470k, 560k, 750k & 1M. Total 60 values - 300 resistors.
You know exactly what you are getting when you buy our resistor packs.

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-0680	$14.95	$13.45	$11.95

The Easy Way to Buy 0.25 Watt Carbon Film Resistors

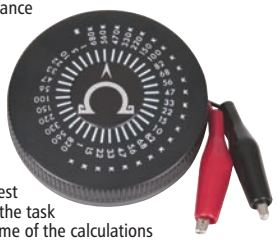


This pack includes 10 of every value of 1/4W 5% carbon film resistors from 1Ω to 10MΩ. This is the E12 range, which goes like this - 10, 12, 15, 18, 22, 27, 33, 39, 47, 56, 68, 82, 100. Total values supplied is 85, giving a total of 850 resistors. Resistors are bandoleered for easy sorting. A great way to never be out of that odd resistor and save a packet at the same time.

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-1697	$14.95	$10.35	$8.75

Resistor Substitution Wheel

36 VALUES
Convenient resistance selection. Select from 36 values ranging from 5 ohms to 1 megaohms.



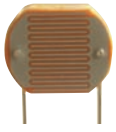
- Great for creating new circuits for selecting the best resistances for the task
- Assists with some of the calculations associated with resistance usage
- Comes complete with leads and insulated alligator clips.
- Uses 0.25W resistors with 5% tolerance

Cat.	Qty 1+	Qty 25+	Qty 100+
RR-0700	$29.95	$20.70	$17.70

Light Dependent Resistor (LDR)

Cadmium sulphide (CdS) light dependent resistor cell.

Specifications	
Dark resistance	0.5M ohm min.
Light resistance	2.8k ohm min
	8.4k ohm max.
Max dissipation	100mW
Rise time	(0-63%) 50mS
Decay time	(100 - 37%) 40mS
Dimensions	8.5mm x 10.14mm
Lead spacing	7.68mm.



Cat.	Qty 1+	Qty 25+	Qty 100+
RD-3485	$2.75	$1.90	$1.65

Light Dependent Resistor (LDR)

Cadmium Sulphide (CdS) light dependent resistor cell. Similar to Philips ORP12

Specifications	
Dark resistance	min10MΩ
Light resistance	48k - 140kΩ
Max dissipation	30mW
Rise time	(0~63%) 40mS
Decay time	(100~37%) 10mS
Dimensions	5.1mm x 4.3mm ±0.2
Lead spacing	3.4mm

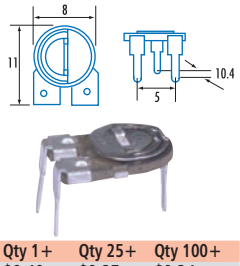
Cat.	Qty 1+	Qty 25+	Qty 100+
RD-3480	$2.75	$1.90	$1.65

TRIMPOTS

Horizontal Mini Trimpots

OPEN CARBON TYPE

Value	Cat.
500Ω	RT-4304
1kΩ	RT-4306
2kΩ	RT-4308
5kΩ	RT-4310
10kΩ	RT-4312
20kΩ	RT-4314
50kΩ	RT-4316
100kΩ	RT-4318
200kΩ	RT-4320
500kΩ	RT-4324

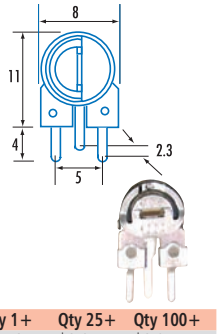


Cat.	Qty 1+	Qty 25+	Qty 100+
All Types / Each	$0.40	$0.27	$0.24

Vertical Trimpots 5mm

OPEN CARBON TYPE

Value	Cat.
200Ω	RT-4006
500Ω	RT-4008
1kΩ	RT-4010
2kΩ	RT-4012
5kΩ	RT-4014
10kΩ	RT-4016
20kΩ	RT-4018
50kΩ	RT-4020
100kΩ	RT-4022
250kΩ	RT-4024
500kΩ	RT-4026
1MΩ	RT-4028
2MΩ	RT-4029

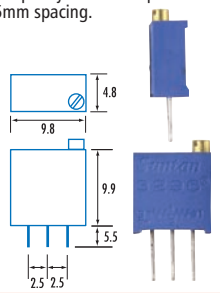


Cat.	Qty 1+	Qty 25+	Qty 100+
All Types / Each	$0.40	$0.27	$0.24

25 Turn Cermet (3296W)

These are 25 turn industrial quality sealed trimpots.
Pins are in a row, with 2.5mm spacing.
Adjustment is vertical.
Power rating is 0.5 watts.

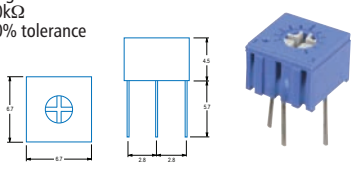
Value Ω	Cat.
100	RT-4640
500	RT-4642
1K	RT-4644
2K	RT-4646
5K	RT-4648
10K	RT-4650
20K	RT-4652
50K	RT-4654
100K	RT-4656
1M	RT-4658



Cat.	Qty 1+	Qty 25+	Qty 100+
All Types / Each	$2.45	$1.70	$1.45

Trimpot Cermet 1 Turn 10kΩ (3386P)

- Single turn
- 10kΩ
- 10% tolerance



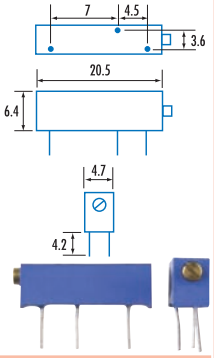
Cat.	Qty 1+	Qty 25+	Qty 100+
RT-4600	$1.45	$0.99	$0.85

Multiturn Cermet (3006P)

0.75 watts @ 70%. Horizontal side adjustment.
- 15-20 turns.

Value Ω	Cat.
100	RT-4602
500	RT-4604
1k	RT-4608
2k	RT-4610
5k	RT-4612
10k	RT-4614
20k	RT-4616
50k	RT-4618
100k	RT-4620
1M	RT-4622

- Major brands stocked



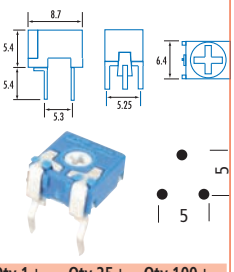
Cat.	Qty 1+	Qty 25+	Qty 100+
All Types / Each	$1.60	$1.10	$0.95

RELATED PRODUCT...
For Trimmer Capacitors see page 186.

Piher Style Horizontal 5mm

At last, a range of top quality sealed mini, standard sized trimpots.
- Dust proof enclosure
- Polyester substrate
- Wiper positioned at 50%
- Accidental rotor movement protected.
- Max voltage 100V / Nom power 0.1W
- Linear curve
- Tolerance +/- 30%
- End resistance 10Ω carbon type.

Value Ω	Cat.
200	RT-4350
500	RT-4352
1K	RT-4354
2K	RT-4356
5K	RT-4358
10K	RT-4360
20K	RT-4362
50K	RT-4364
100K	RT-4366
250K	RT-4368
500K	RT-4370
1M	RT-4372



Cat.	Qty 1+	Qty 25+	Qty 100+
All Types / Each	$0.98	$0.65	$0.55

This colour pricebar denotes a Clearance item - check for specials.

POTENTIOMETERS

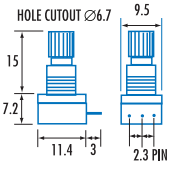
9mm Square PCB Mounting

These pots are rapidly becoming the industry standard for miniaturised audio, digital and telecommunications equipment. This series features good solder bath immersion resistance, 300° rotation and standard 18 tooth metric pre-cut actuator shafts. Two popular metric knobs are now carried, however metric knobs are now commonly available. Both single and dual gang types are stocked in log and linear resistance tapers.

Electrical	Linear Taper (B)	Other Taper
Rated Wattage	0.05W	0.02W
Rated Voltage	50VAC	50VAC
Slider Noise	<100mV	
Insulation Resistance	>100MΩ at 250VDC	
Dielectric	300VAC/Minute	
Tracking Error	Within 3dB at 40~0dB	

Mechanical	
Rotation Angle:	300° +/-5°
Rotation Torque:	20~250gf.cm
Shaft Stop Strength:	5kgf.cm/min.

Single Gang



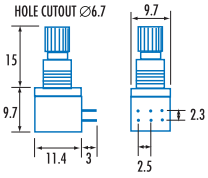
LOG SINGLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10k	RP-8610	$2.75	$2.15	$1.90
50k	RP-8616	$2.75	$2.15	$1.90

LINEAR SINGLE GANG (B)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
1k	RP-8504	$2.75	$2.15	$1.90
10k	RP-8510	$2.75	$2.15	$1.90
50k	RP-8516	$2.75	$2.15	$1.90
100k	RP-8518	$2.75	$2.15	$1.90
1M	RP-8524	$2.75	$2.15	$1.90

Double Gang



LOG DOUBLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10k	RP-8756	$3.95	$3.15	$2.75
50k	RP-8760	$3.95	$3.15	$2.75

LINEAR DOUBLE GANG (B)

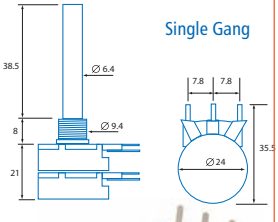
Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10k	RP-8706	$3.95	$3.15	$2.75
50k	RP-8710	$3.95	$3.15	$2.75
100k	RP-8712	$3.95	$3.15	$2.75

16mm PCB Mounting

These pots have imperial standard shaft.

- Shaft is 1/4" D type (30% of shaft has been removed for flat), so they suit all our knob range.
- Shaft length is 30mm.
- Power rating Linear 0.2W and Log 0.1W.
- Supplied with nut and washer

Single Gang



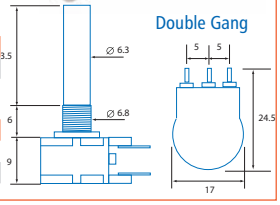
LOG SINGLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
1K	RP-7604	$1.95	$1.55	$1.35
10K	RP-7610	$1.95	$1.55	$1.35
50K	RP-7616	$1.95	$1.55	$1.35

LINEAR SINGLE GANG (B)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
1K	RP-7504	$1.95	$1.55	$1.35
5K	RP-7508	$1.95	$1.55	$1.35
10K	RP-7510	$1.95	$1.55	$1.35
50K	RP-7516	$1.95	$1.55	$1.35
100K	RP-7518	$1.95	$1.55	$1.35
1M	RP-7524	$1.95	$1.55	$1.35

Double Gang



LOG DOUBLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10K	RP-7756	$2.75	$2.15	$1.90

LINEAR DOUBLE GANG (B)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
50K	RP-7708	$2.75	$2.15	$1.90
100K	RP-7712	$2.75	$2.15	$1.90

24mm PCB Mounting

With imperial standard shaft & bushings made to our rigid engineering specifications. The potentiometers are full size - 24mm diameter types . Power rating is 0.5W max. They have genuine 6.35mm (1/4") shafts with a flat machined 25% of the diameter for grubscrews or interference fit knob mounting. The shaft is a generous 38mm long. The bush is a 3/8" 32 T.H.D. type which we believe is necessary for good fixing to a panel. Another important feature of the pots is their PCB mount capability. The pins are rigidly mounted on phenolic with the centre pin offset from the two outer terminals. When soldered into a PCB, the pot is quite rigidly held on its own. Double gang pots are held in 6 places and require no extra mechanical mounting assistance. The pins are large enough to terminate screened cable, etc., if the job requires hard wiring.

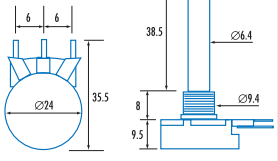
- We have stocked this product for over 10 years now and have no intention of changing it. You can therefore confidently design around this product.
- Supplied with nut and washer

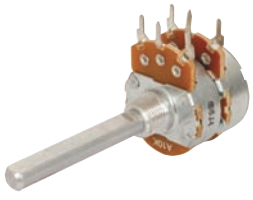
LOG SINGLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
1k	RP-3604	$2.25	$1.80	$1.55
5k	RP-3608	$2.25	$1.80	$1.55
10k	RP-3610	$2.25	$1.80	$1.55
25k	RP-3614	$2.25	$1.80	$1.55
50k	RP-3616	$2.25	$1.80	$1.55
100k	RP-3618	$2.25	$1.80	$1.55
250k	RP-3620	$2.25	$1.80	$1.55
500k	RP-3622	$2.25	$1.80	$1.55
1M	RP-3624	$2.25	$1.80	$1.55

LINEAR SINGLE GANG (B)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
500R	RP-3502	$2.25	$1.80	$1.55
1k	RP-3504	$2.25	$1.80	$1.55
5k	RP-3508	$2.25	$1.80	$1.55
10k	RP-3510	$2.25	$1.80	$1.55
25k	RP-3514	$2.25	$1.80	$1.55
50k	RP-3516	$2.25	$1.80	$1.55
100k	RP-3518	$2.25	$1.80	$1.55
250k	RP-3520	$2.25	$1.80	$1.55
500k	RP-3522	$2.25	$1.80	$1.55
1M	RP-3524	$2.25	$1.80	$1.55



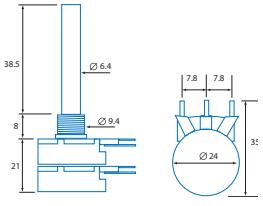


LOG DOUBLE GANG (A)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10k	RP-3756	$3.50	$2.75	$2.45
50k	RP-3760	$3.50	$2.75	$2.45
100k	RP-3762	$3.50	$2.75	$2.45

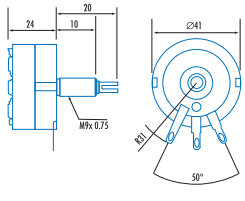
LINEAR DOUBLE GANG (B)

Value	Cat.	Qty 1+	Qty 10+	Qty 50+
10k	RP-3706	$3.50	$2.75	$2.45
25k	RP-3708	$3.50	$2.75	$2.45
50k	RP-3710	$3.50	$2.75	$2.45
100k	RP-3712	$3.50	$2.75	$2.45



5 Ohm 15W Wirewound

Specifications	
Resistance	5 Ohms
Resistance curve	Linear (B)
Rated wattage	15 Watts
Shaft	Spline (metric)
Body measures	41mm OD x 24mm Depth
Shaft Length	20mm; 9.0mm hole required
Lugs	Solder Type
Total rotation angle	300° +/-5°
Rotation Torque	70~400gf.cm
Stopper Strength	10kgf.cm



	Cat.	Qty 1+	Qty 10+	Qty 50+
	RP-3975	$9.95	$7.75	$6.75

Potentiometer Nuts

Packet of 12 nuts and washers to suit our pots.

	Thread	Cat	Qty 1+	Qty 10+	Qty 50+
24mm	3/8" 32THD	RP-3500	$2.85	$2.53	$2.23
16mm	Metric	RP-7500	$2.85	$2.53	$2.23

Equipment Knobs

PLASTIC KNOBS

HK-7760

HK-7762

HK-7764

HK-7766

HK-7705

HK-7713

HK-7707

HK-7715

HK-7709

HK-7717

HK-7711

FLUTED PLASTIC WITH POINTER SLOT AND SKIRT
Grubscrew fixing - brass insert. Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	16 x 19	HK-7760	$1.30	$1.15	$1.01
Black	20 x 16	HK-7762	$1.85	$1.65	$1.45
Black	24 x 20	HK-7764	$2.20	$1.95	$1.75
Black	35 x 19	HK-7766	$2.95	$2.60	$2.30

PUSH ON - COLOURED CAP
Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Red	18 x 20	HK-7705	$0.85	$0.75	$0.65
Yellow	18 x 20	HK-7713	$0.85	$0.75	$0.65
Black	18 x 20	HK-7707	$0.85	$0.75	$0.65
White	18 x 20	HK-7715	$0.85	$0.75	$0.65
Blue	18 x 20	HK-7709	$0.85	$0.75	$0.65
Grey	18 x 20	HK-7717	$0.85	$0.75	$0.65
Green	18 x 20	HK-7711	$0.85	$0.75	$0.65

BLACK PLASTIC WITH POINTER
Brass ferrule insert. Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	23 x 14	HK-7787	$1.50	$1.35	$1.20

LIFETIME WARRANTY ON ALL KNOBS!

HK-7787

HK-7770

HK-7772

HK-7788

HK-7549

HK-7730

HK-7731

HK-7732

HK-7733

HK-7734

HK-7700

METRIC
Suits our 9mm Mini Potentiometers. Matches HK-7760/66 series.
Fits all standard metric shafts.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	15 x 14	HK-7770	$1.50	$1.35	$1.20
Black	20 x 16	HK-7772	$1.85	$1.65	$1.45

SKIRT NUMBERED 1-10
Grubscrew fixing - brass ferrule insert. Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Silver/Black	29 x 18	HK-7788	$2.95	$2.60	$2.30
Silver/Black	36 x 23.5	HK-7549	$2.95	$2.60	$2.30

PUSH ON - 18T SPLINE
Suits our 9mm Mini Potentiometers. Matches HK-7760/66 series.
Fits all standard metric shafts.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Grey/Red	13 x 18	HK-7730	$0.95	$0.85	$0.75
Grey/Yellow	13 x 18	HK-7731	$0.95	$0.85	$0.75
Grey/Green	13 x 18	HK-7732	$0.95	$0.85	$0.75
Grey/Blue	13 x 18	HK-7733	$0.95	$0.85	$0.75
Grey/White	13 x 18	HK-7734	$0.95	$0.85	$0.75

PLASTIC POINTER
Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	19 x 32	HK-7700	$1.35	$1.20	$1.05

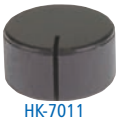
ALUMINIUM / PLASTIC INSERT KNOBS

HK-7020

HK-7022

HK-7009

HK-7010


HK-7011

BRUSHED ALUMINIUM
Ideal for HiFi projects. Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Silver	16 x 14	HK-7020	$2.75	$2.45	$2.15
Silver	22 x 14	HK-7022	$2.95	$2.60	$2.30

BLACK ANODISED ALUMINIUM
Grub screw fixing. Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	16 x 14	HK-7009	$2.75	$2.45	$2.15
Black	22 x 14	HK-7010	$2.95	$2.60	$2.30
Black	29 x 14	HK-7011	$3.95	$3.45	$3.15

HK-7786

HK-7740

HK-7741

HK-7742

BLACK PLASTIC WITH ALUMINIUM INSERT
White pointers - brass insert.
Grub screw fixing.
Suit 0.25"/6.35mm shaft.

Colour	Ø x H (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Silver/Black	20 x 18	HK-7786	$2.20	$1.95	$1.75
Silver/Black	27 x 15	HK-7740	$1.50	$1.35	$1.20
Silver/Black	32 x 17	HK-7741	$1.85	$1.65	$1.45
Silver/Black	45 x 20	HK-7742	$3.45	$3.05	$2.75

TECH TIP

Caution

When ordering knobs (from any supplier) double check that the knob you are getting will fit the shaft of the component you are using it with. For example a knob with a 6mm shaft hole will not accept a 1/4" shaft. As you are probably aware 1/4" equals 6.35mm. That 0.35mm is enough to render the knob unusable. So called "metric" knobs often have an 18 spline interference fit hole suitable only for push-on type aluminium shafts.

Note: Apart from metric, all knobs shown on this page fix to 0.25"/6.35mm shafts (with flat) unless otherwise stated

Charlie the Soccer Playing Robot

Makers Name: Ben Thomas
Location: Victoria

I'm Ben and I'm 17, throughout 2012 I built and programmed an autonomous soccer playing robot. The link shows the robot and it's team mate scoring some goals at the Australian National Robocup Jr competition - we got second place.

I will admit that Charlie the robot wasn't built using entirely Jaycar parts, but many of the smaller electronic components were from Jaycar along with the soldering iron used to make the circuits and the most amazing wire strippers ever.

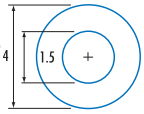
The robot is controlled by an Arduino ATmega 2560. The way it works is the ball that it chases emits pulsed infra red. It uses 18 pulsed infra red receivers positioned all around the circumference of the robot, when it sees the ball it determines which receiver is seeing the ball the most and then manouvers around the ball until the ball is directly in front of the robot.

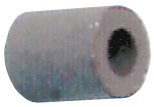
For more details scan the QR code or go to www.jaycar.com.au/makers

FERRITES

Ferrite Bead

These small tubes can be threaded on to a wire to provide RF or interference suppression at frequencies higher than the normal operating range of the equipment to be protected.



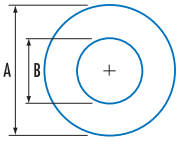


Length (mm)	Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
5.0	6	LF-1250	$2.95	$1.95	$1.75

Ferrite Suppression Sleeves

Similar to suppression beads (see above) but longer for greater attenuation.

Cat.	Typical Impedance	
	(Z)@25MHz	(Z)@100MHz
LF-1256	52	66
LF-1258	130	200
LF-1260	161	255

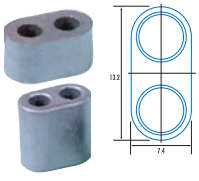


Length (mm)	A (mm)	B (mm)	Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
16	8.0	5.6	6	LF-1256	$3.95	$3.45	$3.15
20	12	5.6	6	LF-1258	$5.50	$4.90	$4.30
29	16	8.0	6	LF-1260	$6.50	$5.75	$4.95

Standard Transformer (Balun) Cores

Generally used in VHF/UHF circuits for balanced or unbalanced line matching. Can also be used as a lossy choke, etc.

- Material: Type M7
- Insertion Loss: 40-220MHz 0.5dB > 220MHz 1.0dB



Length (mm)	Pkt	Cat.	Qty 1+	Qty 25+	Qty 100+
6.0	2	LF-1222	$1.95	$1.75	$1.55
14	2	LF-1220	$1.95	$1.75	$1.55

Ferrite Flat Bar

- Short and compact.
- Ideal for MW tuned circuits
- Frequency: 0.5 - 10MHz
- Also suitable for suppression work .

L x W x D (mm)	Cat	Qty 1+	Qty 25+	Qty 100+
40 x 12 x 5	LF-1016	$1.75	$1.20	$1.05

Ferrite Rounds

- 9mm diameter. • Material S-1
- Ideal for MW tuned circuits or suppression work

Ø x W (mm)	Cat	Qty 1+	Qty 25+	Qty 100+
9 x 100	LF-1010	$1.75	$1.20	$1.05
9 x 180	LF-1012	$3.95	$2.75	$2.30

Ferrite Rod With Coil

Small ferrite rod complete with pre-wound standard broadcast band coil. Ideally suitable to our 60-160pf mini tuning capacitor

L x W x D (mm)	Cat	Qty 1+	Qty 25+	Qty 100+
55 x 12.5 x 4.5	LF-1020	$2.75	$1.90	$1.65

High Frequency Ferrite Choke

PCB mounting ferrite chokes suitable for frequency circuits.

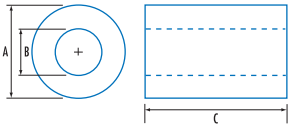
Inductance	Pitch (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
47µH	5.0	LF-1100	$0.60	$0.40	$0.35
100µH	5.0	LF-1102	$0.60	$0.40	$0.35
220µH	5.0	LF-1104	$0.60	$0.40	$0.35
330µH	5.0	LF-1106	$0.60	$0.40	$0.35
470µH	5.0	LF-1108	$0.60	$0.40	$0.35

Toroid (or Ring) Cores

Toroid (both ferrite and powered iron) are commonly used as cores for transformers or chokes mainly for RF suppression but also for any application where a compact reactive component is needed.

Drawing for both ferrite and powdered iron types See website for more info.

FERRITE MATERIAL



MATERIAL L8 SIZE 18(A) X 10(B) X 6(C) (MM)

Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
6	LO-1230	$2.50	$1.75	$1.50

MATERIAL L8 SIZE 25(A) X 15(B) X 10(C) (MM)

Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
4	LO-1234	$3.95	$2.75	$2.30

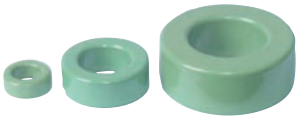
MATERIAL L15 SIZE 35(A) X 21(B) X 13(C) (MM)

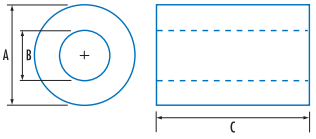
Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
2	LO-1238	$3.95	$2.75	$2.30

Powdered Iron Cores

These toroids are made out of compressed powdered iron and coated with a tough epoxy material. They are ideal for RF suppression of light dimmers, motor speed controllers, switch mode power supplies etc.

- Colour: Green epoxy coating.
- Contact us for bulk quantity prices
- Material HY-2

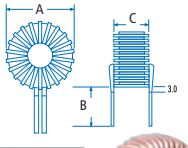




A x B x C (mm)	Pkt	Cat	Qty 1+	Qty 25+	Qty 100+
15 x 8 x 6.5	4	LO-1242	$4.95	$3.45	$2.90
28 x 14 x 11	2	LO-1244	$3.95	$2.75	$2.30
42 x 22 x 17	1	LO-1246	$6.95	$4.75	$4.15

Through Hole EMC/RFI Suppression Chokes

Ideal for all wideband choke applications. Highly effective against EMI/RFI entering equipment via the mains power lines. Powdered iron core.

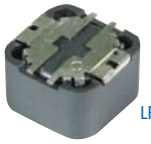


Specifications	LF-1270	LF-1272	LF-1274	LF-1276	LF-1278
RDC mΩ	50	25	25	60	82
Wire Dia mm	1.0	0.8	1.0	1.0	1.0
Dimension A mm	26	21	24.5	28.5	31
Dimension B mm	25	10	10	10	10
Dimension C mm	13	10.5	10	13	17

Inductance (µH)	Current (A)	Cat	Qty 1+	Qty 25+	Qty 100+
100	3A	LF-1272	$2.95	$1.95	$1.75
100	5A	LF-1270	$2.95	$1.95	$1.75
47	5A	LF-1274	$2.95	$1.95	$1.75
220	5A	LF-1276	$4.95	$3.45	$2.90
470	5A	LF-1278	$5.95	$4.15	$3.45

SMD Type EMC/RFI Suppression Chokes

These popular devices complement our wire - terminated LF-1270 style ferrite chokes. Good suppression of RF-EMI from DC/DC converters or any circuit which generates commutation noise etc. which needs to be suppressed to meet regulations. Supplied in bags of 10 cut from a tape reel.



SMD

LF-1402

LF-1400

Specifications	LF-1400	LF-1402
Inductance	100uH+/-10%	100uH+/-20%
Series DC resistance (RDC)	0.99Ω	179.6mΩ max
Rated DC current	520mA	1.8A
Size	5.8 x 4.5mm	12 x 12 x 8mm

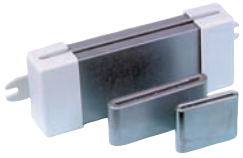
Pkt	Cat.	Qty 1+	Qty 25+	Qty 100+
10	LF-1400	$5.95	$4.15	$3.45
10	LF-1402	$9.95	$6.75	$5.75

Ferrites

FERRITES (CONTINUED)

Flat Cable Suppression Sleeves

These devices are designed to suppress high frequency (fast rise time) interference (radiation) to and from PC boards, printers, disk drives etc. The ferrite makes the cable behave like a high impedance choke at high frequencies.



FOR 16 WAY RIBBON CABLE

Typical Impedance	25MHz	100MHz	Cat	Qty 1+	Qty 25+	Qty 100+
Pkt 2 Sets	54Ω	120Ω	LF-1280	$4.95	$4.45	$3.90

FOR 26 WAY RIBBON CABLE

Typical Impedance	25MHz	100MHz	Cat	Qty 1+	Qty 25+	Qty 100+
Per Set	38Ω	91Ω	LF-1284	$5.95	$5.25	$4.75

FOR 50 WAY RIBBON CABLE
(Supplied as a pair with clip)

Typical Impedance	25MHz	100MHz	Cat	Qty 1+	Qty 25+	Qty 100+
Per Set	72Ω	190Ω	LF-1286	$10.95	$7.50	$6.50

Round Cable Suppression Sleeves

Basically a split high permeability ferrite core with a plastic case, these devices are ideal where parasitic voltage spikes or RF breakthrough are a problem or potential problem. The cores come in a hinged plastic case, simply snap on to the computer or data cable. Three versions are offered which cover most computer leads etc. For extra security, lock assembly together with a cable tie.

TYPICAL IMPEDANCE VS FREQUENCY
(Rise Time of Interference Signal)

Note: All figures are approximate

Model	Cable Dia	1MHz	25MHz	50MHz	100MHz	300MHz	500MHz
U-25	12.5	10Ω	150Ω	200Ω	250Ω	290Ω	200Ω
U-16	8.2	20Ω	100Ω	200Ω	220Ω	150Ω	<100Ω
U-15	7.0	<10Ω	160Ω	220-250Ω	280Ω	300+Ω	245Ω

MODEL U25:
This offers impedance (peak approx 300Ω at 2-300MHz) with negligible impedance below 1MHz. Plastic case measures 32L x 30mm square. It will take a lead up to 12mm (1/2") diameter but preferably 10mm.

	Cat.	Qty 1+	Qty 25+	Qty 100+
Each	LF-1290	$7.75	$5.25	$4.60

MODEL U16:
A compact attenuator that will pass a cable up to 8mm dia (most monitor cables etc). Typical impedance at 25MHz 300Ω approx, 590Ω at 100MHz dropping off after that. Case measures 20Lx19Dia mm.

	Cat.	Qty 1+	Qty 25+	Qty 100+
Pkt 4	LF-1292	$9.95	$6.75	$5.75

MODEL U15:
This model is for 7mm dia cable or smaller.

- Offers good protection up to 500MHz.

	Cat.	Qty 1+	Qty 25+	Qty 100+
Pkt 2	LF-1294	$7.95	$5.50	$4.75

PLEASE NOTE:
- Full specifications available on website.
- If the cable can be looped through the core twice or more (obviously only for thinner cables) the attenuation is increased substantially.

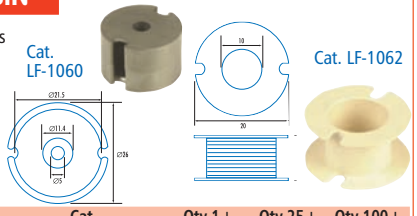
MORE INFO WEB

POT CORE & BOBBIN

This handy sized pot core set is made from low loss material and is equivalent to the original Philips FX 2240 part.

- Size (each half): 26(OD) x 11.5(ID) x 8(H)mm
- Material: FP4

Cat. LF-1060

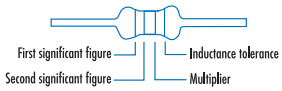


Cat. LF-1062

	Cat.	Qty 1+	Qty 25+	Qty 100+
Pot Core - pair	LF-1060	$4.95	$3.45	$2.90
Bobbin to suit	LF-1062	$0.85	$0.57	$0.50

RF CHOKES

Specifications	
Axial leads	Colour coded per IEC
Tolerance	±10%,
Rated temp. rise	-20°C to +80°C
Dielectric withstanding voltage	250Vrms



(μH) DC Inductance	(Ω) Rated Resistance	DC Current Max (mA)	Cat.
1μ0	0.09	920	LF-1510
1μ5	0.23	830	LF-1512
2μ2	0.28	750	LF-1514
3μ3	0.34	670	LF-1516
4μ7	0.39	620	LF-1518
6μ8	0.48	550	LF-1520
10	0.58	500	LF-1522
15	0.72	460	LF-1524
22	0.84	410	LF-1526
33	1.03	370	LF-1528

(μH) DC Inductance	(Ω) Rated Resistance	DC Current Max (mA)	Cat.
47	1.22	340	LF-1530
68	1.47	305	LF-1532
100	1.80	275	LF-1534
150	4.20	175	LF-1536
220	5.10	155	LF-1538
330	6.40	137	LF-1540
470	7.70	126	LF-1542
680	9.40	113	LF-1544
1000	14.00	100	LF-1546

	Qty 1+	Qty 25+	Qty 100+
All the above	$0.50	$0.35	$0.30

FERRITE RF COIL PACK

Pack includes:
- Moulded coil former with PC Pins
- Threaded Ferrite slug
- Metal screening can

Specifications	
Former	Pin spacing 6.5mm
Height (less pins) 11mm	Diameter of former 3mm
Slug	
Material F16	Length 8mm
Can	
Material, drawn aluminium	Height 12.5mm
Pin spacing 7.5mm	Hole in top of can for slug adjustment

	Cat.	Qty 1+	Qty 25+	Qty 100+
	LF-1227	$3.50	$2.45	$2.05

Mini Coil Pack

Set of 4 standard coils for AM section of a superheterodyne receiver with 455kHz. IF offset. Colour dot on top of ferrite slug indicates type.

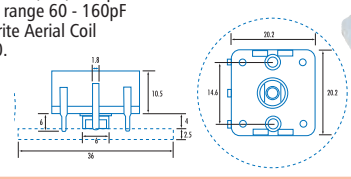
- Red is the oscillator coil
- Yellow is the first 455kHz IF
- White is the 2nd
- Black is the 3rd.
- See website for more information.

	Cat.	Qty 1+	Qty 25+	Qty 100+
	LF-1050	$3.75	$2.60	$2.15

MINIATURE TUNING CAPACITOR

As used in most transistor radios and many kits that incorporate a radio.

- Size 20 x 20 x 10.5 high (mm).
- Supplied with 35(mm) dia. plastic knob & screw.
- Capacitance range 60 - 160pF
- Suitable Ferrite Aerial Coil Cat. LF-1020.



	Size (mm)	Cat.	Qty 1+	Qty 25+	Qty 100+
	20 x 20 x 10.5	RV-5728	$2.75	$1.90	$1.65

TECH TIP

WHAT, EXACTLY IS FERRITE?

Ferrite is a ceramic material with Iron Oxide – up to 50% - then with oxides of manganese and zinc or nickel. The ceramic material is mixed with these substances, pressed or extruded into useful shapes and finally fired in a furnace to their final hard, brittle state.

From this there are two forms: Manganese – Zinc (Mn-Zn) ferrites which are the most common and are used for lower frequency work. They have higher permeability than the higher frequency type which have Nickel and Zinc Oxide components.

The products shown in this catalogue are Mn-Zn types. For more information check our website.

EMI FILTERS

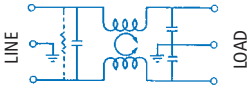
IEC EMI Power Line Filter - 6 Amp

These Industry standard design RF/EMI filters are designed to reduce line - to - ground (common mode) interference. They accept a standard IEC power line connector and are panel mounted. They meet (or exceed) international standard leakage requirements and are rated for mains voltages of 115 to 250V, 50, 60Hz.

- Safety and construction are in compliance with UL, CSA, VDE.

Specifications:	
Rated voltage	115/250VAC
Power line freq	50/60Hz
Rated current	6 amps
Maximum leakage current	@ 115 VAC 60Hz 0.25mA
Line to ground	@ 250VAC 50Hz 0.50mA
Test voltage	Line to ground: 2250VDC, one minute
	Line to line: 1450VDC, one minute
Typical insertion loss (dB) =	Line-to-ground in 50Ω system.

Current	Freq (MHz)					
Rating	0.15	0.5	1	5	10	30
6A	10	20	25	42	45	50



	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-4003	$9.95	$8.75	$7.75

240V AC EMI Filter

POWERTECH

Designed for mounting inside a chassis, these industry standard RF/EMI filters are pre-designed to reduce line-to-ground (common mode) interference. Rated for mains voltages of 125 or 240VAC 50 or 60Hz, they are very useful when mains cords are fixed to the outside chassis and an IEC320 inlet is not suitable.

Specifications:	
Rated voltage	250VAC, 50Hz
Rated current	10A
Leak current	0.8mA max
Insulation resis	100M ohm min
Attenuation	1 - 50MHz
Termination	PCB mounting pins (MS-4000) & solder tags (MS-4001)
Dimensions: MS-4000	36(L) x 31(W) x 19(H)mm
Dimensions: MS-4001	50(L) x 25(W) x 31(H)mm

1 YEAR WARRANTY

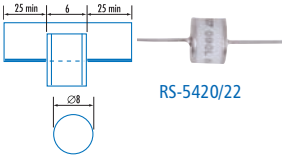
	Cat.	Qty 1+	Qty 25+	Qty 100+
PCB Mount - 4 Way	MS-4000	$5.95	$4.15	$3.45
Chassis Mount - 6 Way	MS-4001	$7.95	$5.50	$4.75

SURGE ARRESTORS

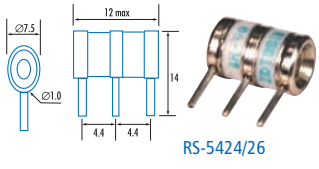
Gas Discharge Type Surge Arresters

Gas discharge arresters are ideal for quenching high voltage, fast rise-time interference transients. They are very high impedance (virtually open circuit) in the normal state with a typical capacitance of 1pF between electrodes. When a voltage spike appears, they arc over and present a relatively low impedance in this condition effectively quenching the spike. They are suitable for protection of telecom lines and antenna circuits. They are not recommended to be fitted across mains circuits as the low source impedance of the mains could destroy these devices after the fault spike has cleared.

- Well-proven and reliable device.
- Four models are offered.



RS-5420/22



RS-5424/26

DC Spark Over Voltage	Axial 2 Electrodes	PCB Mount 3 Electrodes
90V +/- 20%	Cat. RS-5420	Cat. RS-5424
230V +/- 15%	Cat. RS-5422	Cat. RS-5426

MANUFACTURERS: CONTACT US FOR BULK PRICES.

		Cat.	Qty 1+	Qty 10+	Qty 25+
90V	2 Electrodes	RS-5420	$8.95	$7.95	$6.95
230V	2 Electrodes	RS-5422	$8.95	$7.95	$6.95
90V	3 Electrodes	RS-5424	$8.95	$7.95	$6.95
230V	3 Electrodes	RS-5426	$8.95	$7.95	$6.95

VOLTAGE PROTECTION

Metal Oxide Varistors (MOV)

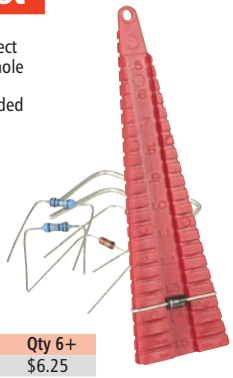
Ideal protection against voltage spikes or transients. Most mains filters have MOVs. Helps to prevent damage to sensitive equipment such as microprocessors and digital electronics.

- Resin dipped case

Prices per each.

Operating Voltage(AC)	Dia	Clamping Voltage(V)	Peak Current(A)	Max Energy(J)	Cat.	Qty 1+	Qty 10+	Qty 25+
10	8	18	100	0.4	RN-3411	$1.75	$1.55	$1.40
10	14	18	500	2.8	RN-3412	$1.75	$1.55	$1.40
10	17	18	1000	6.6	RN-3413	$1.75	$1.55	$1.40
275	10	710	2500	60	RN-3406	$1.75	$1.55	$1.40
275	14	710	4500	115	RN-3400	$1.75	$1.55	$1.40
275	20	710	6500	190	RN-3404	$1.75	$1.55	$1.40
460	10	750	2500	125	RN-3415	$1.75	$1.55	$1.40
460	14	750	4500	203	RN-3416	$1.75	$1.55	$1.40
460	25	1240	6500	266	RN-3417	$1.75	$1.55	$1.40

COMPONENT LEAD FORMING TOOL



Get the hole spacing for your resistors and diodes perfect every time. This handy forming tool provides uniform hole spacing from 10 to 38mm. Suitable for production assembly, education and training. The tool is double sided with one side for use with DO47 outline diodes (eg 1N914) and 1W Zener diodes; the other side being suitable for 1/4W resistors, DO41 outline diodes (eg 1N4004).

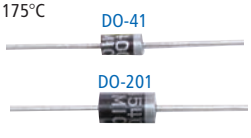
- An incredibly handy tool!
- Made in USA from engineering plastic.
- Dimensions: 138 (L)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1810	$7.95	$6.95	$6.25

TRANSIENT VOLTAGE SUPPRESSORS (TVS)

- Excellent clamping voltage
- Low Zener impedance
- Fast response time
- Operating & storage temperature -55°C to 175°C

MORE INFO WEB



400W RANGE (DC) • Peak power: 400W • Steady state: 1W

Standoff Voltage(V)	Vbr	Clamp Voltage	Peak Pulse Current(A)	Package Size	Cat.	Qty 1+	Qty 10+	Qty 25+
5.5	6.12	10.8	38	DO-41	ZR-1150	$1.45	$1.30	$1.15
12.1	13.5	22.0	19	DO-41	ZR-1152	$1.45	$1.30	$1.15
12.9	14.4	23.5	18	DO-41	ZR-1154	$1.45	$1.30	$1.15

400W RANGE (AC) • Peak power: 400W • Steady state: 1W

Standoff Voltage(V)	Vbr	Clamp Voltage	Peak Pulse Current(A)	Package Size	Cat.	Qty 1+	Qty 10+	Qty 25+
12.8	14.3	21.2	20	DO-41	ZR-1160	$1.70	$1.50	$1.35
13.6	15.2	22.5	19	DO-41	ZR-1162	$1.70	$1.50	$1.35
342	380	548	0.7	DO-41	ZR-1164	$3.50	$3.15	$2.75

1500W RANGE (DC) • Peak power: 1500W • Steady state: 5W

Standoff Voltage(V)	Vbr	Clamp Voltage	Peak Pulse Current(A)	Package Size	Cat.	Qty 1+	Qty 10+	Qty 25+
12.1	13.5	22	69.1	DO-201	ZR-1168	$2.50	$2.21	$1.95
12.9	14.4	23.5	64.7	DO-201	ZR-1170	$2.50	$2.21	$1.95

1500W RANGE (AC) • Peak power: 1500W • Steady state: 5W

Standoff Voltage(V)	Vbr	Clamp Voltage	Peak Pulse Current(A)	Package Size	Cat.	Qty 1+	Qty 10+	Qty 25+
13.6	15.2	22.5	67.6	DO-201	ZR-1175	$3.50	$3.15	$2.75
30.8	34.2	49.9	30.5	DO-201	ZR-1177	$3.50	$3.15	$2.75
342	380	548	2.8	DO-201	ZR-1180	$4.50	$3.95	$3.60

Transistors

SILICON BIPOLAR TRANSISTORS - MAJOR BRANDS ONLY

- Major brands only
- Resin moulded or hermetic metal cases.

SOT-93

TO-264

TO-220

TO-218

TO-126

TO-92

TO-3

TO-3

Type	Polarity	Case	P_D@25°C	V_C	I_C	h_{FE} min/max @ I_C cont.		Cat.	Qty 1+	Qty 10+	Qty 25+
BC327	PNP	TO-92	625mW	50	800mA	100/630	100mA	ZT-2110	$0.42	$0.37	$0.27
BC328	PNP	TO-92	625mW	30	800mA	100/630	100mA	ZT-2112	$0.42	$0.37	$0.27
BC337	NPN	TO-92	625mW	50	800mA	100/630	100mA	ZT-2115	$0.42	$0.37	$0.27
BC338	NPN	TO-92	625mW	30	800mA	100/630	100mA	ZT-2116	$0.42	$0.37	$0.27
BC639	NPN	TO-92	830mW	80	1A	63/250	150mA	ZT-2179	$0.75	$0.65	$0.50
BC546	NPN	TO-92	500mW	80	100mA	110/220	2mA	ZT-2150	$0.26	$0.23	$0.18
BC547	NPN	TO-92	500mW	50	100mA	110/800	2mA	ZT-2152	$0.26	$0.23	$0.18
BC548	NPN	TO-92	500mW	30	100mA	110/800	2mA	ZT-2154	$0.26	$0.23	$0.18
BC549	NPN	TO-92	500mW	30	100mA	110/800	2mA	ZT-2156	$0.26	$0.23	$0.18
BC550	NPN	TO-92	500mW	50	100mA	110/800	2mA	ZT-2160	$0.32	$0.27	$0.22
BC556	PNP	TO-92	500mW	80	100mA	125/475	2mA	ZT-2162	$0.32	$0.27	$0.22
BC557	PNP	TO-92	500mW	50	100mA	125/800	2mA	ZT-2164	$0.26	$0.23	$0.18
BC558	PNP	TO-92	500mW	30	100mA	110/800	2mA	ZT-2166	$0.26	$0.23	$0.18
BC559	PNP	TO-92	500mW	30	100mA	110/800	2mA	ZT-2168	$0.26	$0.23	$0.18
BC640	PNP	TO-92	830mW	100	1A	63/250	150mA	ZT-2180	$0.75	$0.65	$0.50
BD135	NPN	TO-126	8W	40	1.5A	63/250	150mA	ZT-2187	$1.25	$1.10	$0.85
BD136	PNP	TO-126	8W	40	1.5A	63/250	150mA	ZT-2188	$1.25	$1.10	$0.85
BD139	NPN	TO-126	8W	80	1.5A	63/250	150mA	ZT-2189	$0.95	$0.85	$0.65
BD140	PNP	TO-126	8W	80	1.5A	63/250	150mA	ZT-2190	$0.95	$0.85	$0.65
BD649	* NPN	TO-220	60W	100	8A	750	3A	ZT-2198	$2.50	$2.21	$1.75
BD650	* PNP	TO-220	60W	100	8A	750	3A	ZT-2199	$2.50	$2.21	$1.75
BD681	* NPN	TO-126	40W	100	4A	750	1.5A	ZT-2193	$1.85	$1.65	$1.25
BD682	* PNP	TO-126	40W	100	4A	750	1.5A	ZT-2192	$1.85	$1.65	$1.25
BF469	NPN	TO-126	1.8W	250	100mA	50	25mA	ZT-2200	$1.95	$1.75	$1.55
BF470	PNP	TO-126	1.8W	250	100mA	50	25mA	ZT-2202	$1.95	$1.75	$1.55

Type	Polarity	Case	P_D@25°C	V_C	I_C	h_{FE} min/max @ I_C cont.		Cat.	Qty 1+	Qty 10+	Qty 25+
MJ10012*	NPN	TO-3	175W	600	10A	300	3A	ZT-2222	$12.95	$11.35	$8.95
MJL21193	PNP	TO-3P	200W	250	16A	25/75	8A	ZT-2227	$12.50	$10.95	$8.75
MJL21194	NPN	TO-3P	200W	250	16A	25/75	8A	ZT-2228	$12.50	$10.95	$8.75
MJ15003	NPN	TO-3	250W	140	20A	25/150	5A	ZT-2230	$8.50	$7.50	$5.75
MJ15004	PNP	TO-3	250W	140	20A	25/150	5A	ZT-2231	$8.50	$7.50	$5.75
MJ2955	PNP	TO-3	115W	100	15A	5	10A	ZT-2235	$2.95	$2.60	$1.95
MJE340	NPN	TO-126	20W	300	500mA	30/240	50mA	ZT-2255	$2.50	$2.21	$1.75
MJE350	PNP	TO-126	20W	300	500mA	30/240	50mA	ZT-2260	$2.50	$2.21	$1.75
MJE2955	PNP	TO-220	75W	70	10A	20/100	4A	ZT-2275	$2.25	$1.95	$1.55
MJE3055	NPN	TO-220	75W	70	10A	20/70	4A	ZT-2280	$2.20	$1.95	$1.50
MPSA06	NPN	TO-92	625mW	80	500mA	100	10mA	ZT-2286	$0.35	$0.30	$0.24
MPSA13*	NPN	TO-92	625mW	30	500mA	5000	10mA	ZT-2287	$0.35	$0.30	$0.24
NJL1302D	PNP	TO-264	200W	260	25A	75/150	15A	ZT-2237	$8.25	$7.25	$5.75
NJL3281D	NPN	TO-264	200W	260	25A	75/150	15A	ZT-2236	$8.25	$7.25	$5.75
TIP2955	PNP	SOT-93	90W	100	15A	20/70	4A	ZT-2270	$2.95	$2.60	$1.95
TIP3055	NPN	SOT-93	90W	100	15A	20/70	4A	ZT-2278	$2.95	$2.60	$1.95
TIP31	NPN	TO-220	40W	40	3A	25/50	1A	ZT-2285	$1.50	$1.35	$1.05
TIP32	PNP	TO-220	40W	40	3A	25/50	1A	ZT-2290	$1.45	$1.30	$0.99
TIP35C	NPN	TO-218	125W	100	25A	15/75	15A	ZT-2293	$4.95	$4.45	$3.45
TIP36C	PNP	TO-218	125W	100	25A	15/75	15	ZT-2294	$4.95	$4.45	$3.45
TIP41C	NPN	TO-220	65W	100	6A	15/75	3A	ZT-2291	$1.95	$1.75	$1.35
TIP42C	PNP	TO-220	65W	100	6A	15/75	3A	ZT-2289	$1.95	$1.75	$1.35
TIP122	* NPN	TO-220	65W	100	5A	1000	3A	ZT-2292	$1.95	$1.75	$1.35

Type	Polarity	Case	P_D@25°C	V_C	I_C	h_{FE} min/max @ I_C cont.		Cat.	Qty 1+	Qty 10+	Qty 25+
2N2222A	NPN	TO-92	1.8W	75	800mA	100/300	150mA	ZT-2298	$0.30	$0.25	$0.21
2N2907	PNP	TO-92	400mW	40	600mA	100/300	150mA	ZT-2322	$0.95	$0.85	$0.65
2N3053	NPN	TO-3	1W	60	700mA	50/250	150mA	ZT-2299	$0.95	$0.85	$0.65
2N3055	NPN	TO-3	115W	100	15A	20/70	4A	ZT-2300	$2.50	$2.21	$1.75
2N3638	PNP	TO-92	300mW	25	500mA	30/130	30mA	ZT-2320	$1.20	$1.05	$0.80
2N3773	NPN	TO-3	150W	160	16A	15/60	8A	ZT-2324	$7.95	$6.95	$5.50
2N3904	NPN	TO-92	625mW	60	200mA	70	1mA	ZT-2326	$0.50	$0.45	$0.35
2N3906	PNP	TO-92	625mW	40	200mA	80	1mA	ZT-2328	$0.50	$0.45	$0.35

* Denotes Darlington type

Data representative only. Please download the manufacturers data sheet if values are critical.

TRANSISTORS

Multi-Replacement Common Transistors

Two transistors which will replace a multitude of common hard to get devices.
Both are TO-92 package.

Type	Polarity	Case	Vce	Ic	h_{FE} min/max
PN100	NPN	TO-92	45V	500	80-600
PN200	PNP	TO-92	45V	500	80-600

PN100

NPN general purpose medium power amp and switch with continuous collector current up to 500mA. PN100 replaces PN2221, PN2222, PN2222A, PN3565, PN3568, PN3569, PN3643, PN5133, 2N2219A, 2N2222A, 2N3414, 2N3415, 2N3416, 2N3417, 2N3700, 2N3704, 2N3904, 2N4123, 2N4124, 2N4401, 2N5088 and 2N5210.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	ZT-2283	$0.30	$0.25	$0.21

PN200

PNP general purpose amplifier at collector currents to 500mA.
PN200 replaces PN2907, PN2907A, PN3638, PN3638A, PN3640, PN3644, PN4121, PN4143, PN4248, PN4249, PN4250, PN4355, PN4916, PN4917, PN5910, 2N2905A, 2N3467, 2N3702, 2N3906, 2N4125, 2N4126, 2N4291, 2N4402, 2N4403, 2N5086, 2N5087, 2N5447

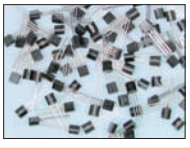
	Cat.	Qty 1+	Qty 10+	Qty 50+
	ZT-2284	$0.30	$0.25	$0.21

Prototype Pack

TRANSISTOR PACK

100 mixed BC series transistors. More of the common types.

- 15 x BC547
- 20 x BC548
- 20 x BC549
- 15 x BC557
- 15 x BC558
- 15 x BC559



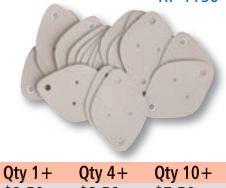
	Cat.	Qty 1+	Qty 10+	Qty 50+
	ZT-2170	$14.95	$13.35	$10.35

Transistor Insulation Kits

SILICONE RUBBER TRANSISTOR INSULATORS

Silicone impregnated rubber washers. Stop using messy silicone grease. These washers are made from silicone rubber and are as effective as mica and grease.

HP-1150



Physical Properties:	
Colour	grey
Tensile strength	40kg/cm2
Elongation	80%
Dielectric breakdown voltage	4000/0.3mm
Co-efficient of thermal conductance	2.4 x 10-3
Flammability class	94V-0/0.3mm
Dimensional stability	0.2% change/0.3mm

Type	Pkt	Cat.	Qty 1+	Qty 4+	Qty 10+
TO-3	20	HP-1150	$9.50	$8.50	$7.50
TO-220	20	HP-1155	$4.95	$4.45	$3.90
TO-220	100	HP-1156	$14.95	$13.35	$11.70

Bushes to suit the silicone impregnated rubber washers and mica washers TO220 - Pkt 100

	Cat.	Qty 1+	Qty 10+	Qty 50+
	HP-1166	$8.95	$7.95	$6.25

SILICONE RUBBER INSULATING KITS

HP-1172

HP-1174

Type	Washers	Bushes	Cat.	Qty 1+	Qty 10+	Qty 25+
TO-3	4	8	HP-1172	$2.50	$2.21	$1.75
TO-3P	4	4	HP-1174	$2.95	$2.60	$1.95
TO-220	4	4	HP-1176	$2.65	$2.30	$1.85

TO-3 & TO-220 MICA INSULATING KITS

Mica washers and bushes

Type	Pkt	Cat.	Qty 1+	Qty 10+	Qty 25+
TO-3	4	HP-1122	$2.75	$2.45	$1.90
TO-220	4	HP-1142	$1.50	$1.35	$1.05
TO-220	100	HP-1140	$11.95	$10.70	$8.25

ADHESIVE TRANSISTOR MOUNTING WASHER KITS

Adhesive silicone washers with good thermal conductivity. Makes installation of transistors a snap! Complete kit supplied including washer and bushes.

Type	Cat.	Qty 1+	Qty 4+	Qty 10+
TO-220	HP-1160	$8.50	$7.50	$6.75
TO-3	HP-1161	$8.50	$7.50	$6.75
TO-3P	HP-1162	$8.50	$7.50	$6.75
TO-126	HP-1163	$8.95	$7.95	$6.95

FULL TO-3 INSULATING CAP

Ideal for insulating 'live' transistors or for simply keeping prying fingers away from potentially dangerous transistor cases.

- Fastens to the transistor
- Has a single ventilation hole to decrease chance of overheating.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZM-9904	$1.20	$1.05	$0.80

TRANSISTOR CLAMPS

Transistor Clamps

- To clamp TO-220 devices to a heatsink.

HH-8600/02

HH-8610

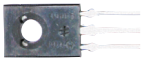
HH-8605/7

Type	Pkt	Cat.	Qty 1+	Qty 10+	Qty 50+
Dual TO-220	ea	HH-8610	$1.00	$0.90	$0.80
Single TO-220	10	HH-8600	$5.95	$5.25	$4.15
Single TO-220	100	HH-8602	$19.95	$17.70	$13.70
Dual TO-220	100	HH-8607	$19.95	$17.70	$13.70

MOSFETS, FETS, UJTS

MOSFETs, FETs, UJTs

- Major brands



UJTS

Type	Voltage	Description	Pack	Cat.	Qty 1+	Qty 10+	Qty 25+
2N2646	30V	UJT PN 300mW	TO-92	ZT-2297	$4.50	$3.95	$3.15
2N6027	40V	UJT Programmable 300mW	TO-92	ZT-2397	$1.65	$1.45	$1.15

FETS

Type	Voltage	Current	Description	Pack	Cat.	Qty 1+	Qty 10+	Qty 25+
2N5484	25V	10mA	JFET N-Ch VHF/UHF Amp	TO-92	ZT-2375	$1.65	$1.45	$1.15
2N7000	60V	20mA	FET D-MOS N-Ch Relay Driver	TO-92	ZT-2400	$0.60	$0.52	$0.40
MPF102	25V	10mA	JFET N-Ch VHF Amp	TO-92	ZT-2262	$1.50	$1.35	$1.05
MPF106/2N5485	25V	10mA	JFET N-Ch VHF/UHF Amp	TO-92	ZT-2266	$1.50	$1.35	$1.05
STP60NF06/ BUK-456-60	60V	60A	FET N-Ch Power	TO-220	ZT-2450	$8.95	$7.95	$6.25
VN10KM	60V	300mA	FET N-Ch	TO-92	ZT-2452	$3.95	$3.45	$2.75

MOSFETS

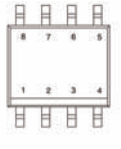
Type	Voltage	Current	Description	Pack	Cat.	Qty 1+	Qty 10+	Qty 25+
2SK1058	160V	7A	MOSFET N-Ch Power	TO-3P	ZT-2460	$19.95	$17.70	$13.70
2SJ162	160V	7A	MOSFET P-Ch Power	TO-3P	ZT-2465	$19.95	$17.70	$13.70
BUZ71	50V	14A	MOSFET N-Ch Power	TO-220	ZT-2225	$3.95	$3.45	$2.75
IRF9540N	100V	23A	MOSFET P-Ch Power	TO-220	ZT-2467	$4.95	$4.45	$3.45
IRF1405N	55V	169A	MOSFET N-Ch Automotive	TO-220	ZT-2468	$4.95	$4.45	$3.45
IRF540N	100V	33A	MOSFET N-Ch Power	TO-220	ZT-2466	$4.95	$4.45	$3.45
STP16NE06	60V	16A	MOSFET N-Ch Power	TO-220	ZT-2277	$2.45	$2.15	$1.70
SUP53P06-20	60V	53A	MOSFET P-Ch	TO-220	ZT-2464	$4.95	$4.45	$3.45
VN10KM	60V	0.3A	FET N-Ch 0.3A	TO-92	ZT-2452	$3.95	$3.45	$2.75

RELATED PRODUCT...

See our range of Heatsinks on page 172.

Dual N-Channel 30V MOSFET - Si4944DY

This handy dual N-channel MOSFET can be used in many projects such as DC-DC conversion and switching circuits. They have extremely low on-resistance (r_{DS}(on) 0.016Ω V_{GS} = 4.5V) and fast switching/low capacitance. They are very useful as analog switches as well as the traditional uses for MOSFETs eg, relay driving, LED driving, etc.



Type	Case	Pkt	Cat.	Qty 1+	Qty 10+	Qty 25+
Si4944DY	SOIC8	EA	ZK-8821	$4.30	$3.75	$2.95

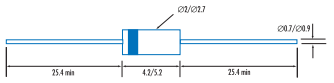
Diodes

GENERAL DIODES

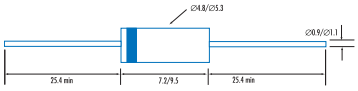
Standard Diodes

a = anode
k = cathode

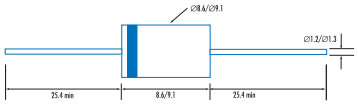
DO-41



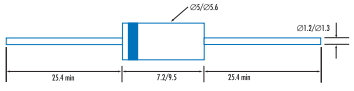
DO-201



R-6

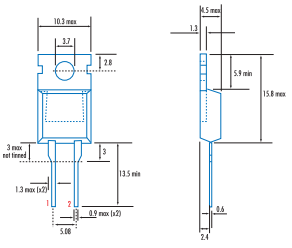


DO-27



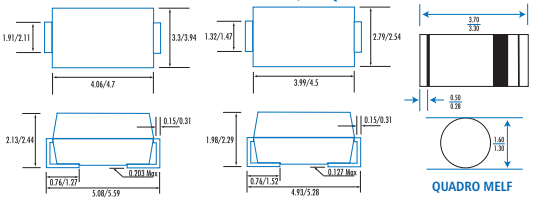
SOD-59

TO-220



SMD Diodes

a = anode
k = cathode



THROUGH HOLE DIODES • SSR = Standard Silicon Rectifier

Type	Description			Case	Pkt	Cat.	Qty 1+	Qty 10+	Qty 25+
1N4004	SSR	400V	1A	D0-41	4	ZR-1004	$0.50	$0.45	$0.41
1N4004		400V	1A	D0-41	100	ZR-1005	$5.95	$5.25	$4.15
1N4007	SSR	1000V	1A	D0-41	4	ZR-1007	$0.60	$0.54	$0.49
1N4007		1000V	1A	D0-41	100	ZR-1008	$10.00	$7.50	$5.50
1N4934	SSR	100V	1A	D0-41	10	ZR-1001	$2.95	$2.15	$1.60
1N5404	SSR	400V	3A	DO-201	ea	ZR-1014	$0.25	$0.18	$0.13
1N5404		400V	3A	DO-201	100	ZR-1015	$9.95	$7.25	$5.25
1N5408	SSR	1000V	3A	DO-201	ea	ZR-1018	$0.30	$0.22	$0.16
1N5408		1000V	3A	DO-201	100	ZR-1017	$12.95	$9.50	$6.95
1N5711	Schottky	70V	15mA	D0-35	ea	ZR-1027	$0.60	$0.45	$0.32
1N5819	Schottky	40V	1A	D0-41	ea	ZR-1020	$0.60	$0.45	$0.32
1N5822	Schottky	40V	3A	D0-201	ea	ZR-1048	$0.95	$0.70	$0.50
1N5822	Schottky	40V	3A	D0-201	10	ZR-1023	$5.95	$4.45	$3.15
1N914/1N4148	Signal								
		100V	150mA	D0-27	5	ZR-1100	$0.40	$0.30	$0.22
1N914/1N4148		100V	150mA	DO-27	100	ZR-1105	$4.95	$3.60	$2.60
6A1/P600B	SSR	100V	6A	R-6	10	ZR-1041	$11.95	$8.75	$6.50
6A4/P600G	SSR	400V	6A	R-6	10	ZR-1044	$11.95	$8.75	$6.50
6A10/P600M	SSR	1000V	6A	R-6	ea	ZR-1024	$1.95	$1.45	$1.05
BAT46/48	Schottky	100V	150mA	D0-27	ea	ZR-1141	$1.20	$0.90	$0.65
BY229	Fast	600V	8A	SOD-59	ea	ZR-1028	$5.95	$4.45	$3.15
FR302	Fast	100V	3A	D0-201	10	ZR-1050	$2.95	$2.15	$1.60
FR307	Fast	1000V	3A	D0-201	10	ZR-1052	$2.95	$2.15	$1.60
FR607	Fast	1000V	6A	R-6	10	ZR-1054	$14.95	$10.95	$7.95
MBR20100CT	Dbl Schottky								
		100V	20A	TO-220	ea	ZR-1039	$2.20	$1.95	$1.50
MBR735	Schottky	35V	7A	TO-220	ea	ZR-1029	$1.50	$1.10	$0.80
SF37	Super fast	600V	3A	D0-27	10	ZR-1090	$5.95	$4.45	$3.15
UF4003	Ultrafast	200V	1A	D0-41	ea	ZR-1034	$0.95	$0.70	$0.50
UF4004	Ultrafast	400V	1A	D0-41	ea	ZR-1036	$1.25	$0.90	$0.65
UF4007	Ultrafast	1000V	1A	D0-41	ea	ZR-1038	$1.75	$1.30	$0.95

SURFACE MOUNT DIODES

• Sold as a pack of 10

Type	Description			Case	Cat.	Qty 1+	Qty 10+	Qty 25+
1N914/1N4148	100V	150mA		QUADRO MELF	ZR-1103	$5.95	$4.45	$3.15
SM4004A	400V	1A		D0-214AC	ZR-1003	$4.95	$3.60	$2.60
SM4007A	1000V	1A		D0-214AC	ZR-1009	$5.95	$4.45	$3.15
SM4934A	100V	1A		D0-214AC	ZR-1070	$5.95	$4.45	$3.15
SM4937A	600V	1A		D0-214AC	ZR-1075	$5.95	$4.45	$3.15
SM5819A	Schottky 40V	1A		D0-214AC	ZR-1021	$5.95	$4.45	$3.15
SM5822B	Schottky 40V	3A		D0-214AA	ZR-1025	$5.95	$4.45	$3.15

ZENER DIODES

1 Watt Zener Diodes*

ABSOLUTE MAXIMUM RATINGS	
Power dissipation	1W
Derate above 50°C	6.67mW/°C
Storage temperature range	-65°C to +200°C
Operating junction temperature	+200°C
Thermal resistance junction to lead	53.5°C/W
Thermal resistance junction to ambient	100°C/W
Lead temperature (1/16" from case for 10 seconds)	230°C
Surge power*	10W
Case Size	DO-41

a = anode
k = cathode

*Non-recurrent square wave PW=8.3ms, TA=55°C
Note 1: ratings are based on max junction temperature of 200°C
Note 2: These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Type	Voltage	Cat.	Qty 1+	Qty 10+	Qty 50+
1N4728	3V3	ZR-1398	$0.55	$0.47	$0.37
1N4729	3V6	ZR-1399	$0.55	$0.47	$0.37
1N4730	3V9	ZR-1400	$0.55	$0.47	$0.37
1N4731	4V3	ZR-1401	$0.55	$0.47	$0.37
1N4732	4V7	ZR-1402	$0.55	$0.47	$0.37

Type	Voltage	Cat.	Qty 1+	Qty 10+	Qty 50+
1N4733	5V1	ZR-1403	$0.55	$0.47	$0.37
1N4734	5V6	ZR-1404	$0.55	$0.47	$0.37
1N4735	6V2	ZR-1405	$0.55	$0.47	$0.37
1N4736	6V8	ZR-1406	$0.55	$0.47	$0.37
1N4737	7V5	ZR-1407	$0.55	$0.47	$0.37
1N4738	8V2	ZR-1408	$0.55	$0.47	$0.37
1N4739	9V1	ZR-1409	$0.55	$0.47	$0.37
1N4740	10V	ZR-1410	$0.55	$0.47	$0.37
1N4741	11V	ZR-1411	$0.55	$0.47	$0.37
1N4742	12V	ZR-1412	$0.55	$0.47	$0.37
1N4743	13V	ZR-1413	$0.55	$0.47	$0.37
1N4744	15V	ZR-1415	$0.55	$0.47	$0.37
1N4745	16V	ZR-1416	$0.55	$0.47	$0.37
1N4746	18V	ZR-1418	$0.55	$0.47	$0.37
1N4747	20V	ZR-1420	$0.55	$0.47	$0.37
1N4748	22V	ZR-1422	$0.55	$0.47	$0.37
1N4749	24V	ZR-1424	$0.55	$0.47	$0.37
1N4750	27V	ZR-1427	$0.55	$0.47	$0.37
1N4751	30V	ZR-1430	$0.55	$0.47	$0.37
1N4752	33V	ZR-1433	$0.55	$0.47	$0.37
1N4753	36V	ZR-1436	$0.55	$0.47	$0.37
1N4754	39V	ZR-1439	$0.55	$0.47	$0.37
1N4761	75V	ZR-1475	$0.75	$0.65	$0.50

5 Watt Zener Diodes

1N53XXB Series Silicon Zener Diodes are a high quality voltage regulator for use in industrial, commercial, entertainment and computer applications.

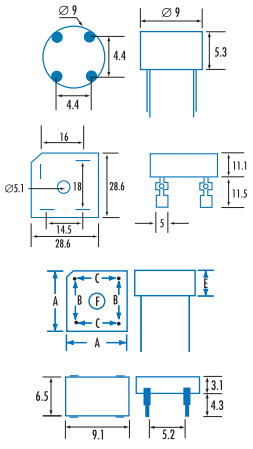
ABSOLUTE MAXIMUM RATINGS	
Power dissipation (@TL=75°C)	5 Watts
Operating and storage temperature	-65°C to +200°C
Tolerence "B Suffix"	+5%

a = anode
k = cathode

Type	Voltage	Cat.	Qty 1+	Qty 10+	Qty 50+
1N5352B	15V	ZR-1450	$1.50	$1.35	$1.05
1N5349B	12V	ZR-1440	$1.50	$1.35	$1.05
1N5374B	75V	ZR-1480	$1.50	$1.35	$1.05

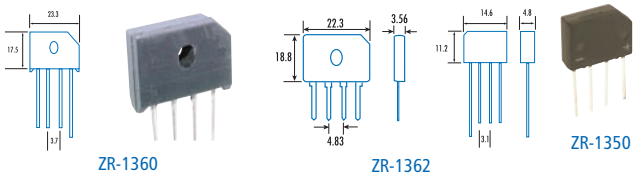
This colour pricebar denotes a Clearance item - check for specials.

BRIDGE RECTIFIERS



ZR-1314 ZR-1320

A=15.3mm A=19.6mm
B=8.8mm B=13.2mm
C=9.1mm C=13.2mm
E=6.4mm E=7.5mm
F=ø4mm F=ø6mm



ZR-1360 ZR-1362 ZR-1350

Bridge Rectifiers

Type	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
DB104	400V	1A	ZR-1308	$0.95	$0.80	$0.55
W04	400V	1.2A	ZR-1304	$0.65	$0.47	$0.35
P04	400V	6A	ZR-1314	$2.25	$1.65	$1.20
BR106	600V	10A	ZR-1320	$2.45	$1.80	$1.30
BR354	400V	35A	ZR-1324	$4.95	$3.60	$2.60

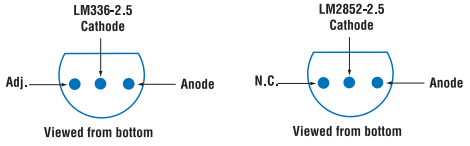
Inline Bridge Rectifiers

Type	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
RS206	800V	2A	ZR-1350	$1.95	$1.45	$1.05
RS604	400V	6A	ZR-1360	$2.95	$2.15	$1.60
GBU806	600V	8A	ZR-1362	$3.50	$2.60	$1.90

VOLTAGE REFERENCE DIODES

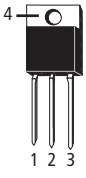
These two devices provide a stable 2.5V reference point for circuitry and can be used to make portable meters, regulators or general purpose analog cicuitry.

The extremely low power drain of the LM285Z-2.5 makes it very useful for micropower circuitry as it can operate with as little as 20µA. The LM285Z-2.5 can enable circuits to operate with battery life approaching shelf life. This is one of the lowest current devices of any discrete voltage references available.

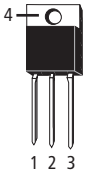


Type	Vref	If (min)	Case	Cat.	Qty 1+	Qty 10+	Qty 25+
LM285Z-2.5 Micropower	2.5V	20uA	TO-92	ZV-1626	$3.95	$3.45	$2.75
LM336-2.5	2.5V	10mA	TO-92	ZV-1624	$3.55	$3.15	$2.45

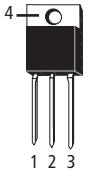
VOLTAGE REGULATORS



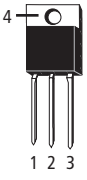
TO-220 package
78xx 1A fixed voltage regulator (+)
1 - input
2 - common (ground)
3 - output
4 - common



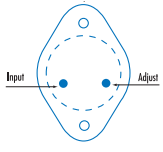
TO-220 package
317T 1.5A adjustable voltage regulator (+)
1 - adjust
2 - output
3 - input
4 - output



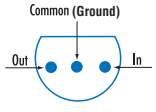
TO-220 package
79xx fixed voltage regulator (-)
1 - common (ground)
2 - input
3 - output
4 - input



TO-220 package
337T voltage regulator (-)
1 - adjust
2 - input
3 - output
4 - input



Connections for the TO-3 LM317K, LM338K & LM350K (viewed from bottom)



Connections for TO-92 78LXX (viewed from bottom)

Standard Voltage Regulators

Type	Vout	Iout	Case	Cat.	Qty 1+	Qty 10+	Qty 25+
7805/LM340T5	+5V	1A	TO-220	ZV-1505	$1.50	$1.35	$1.05
7806/LM340T6	+6V	1A	TO-220	ZV-1506	$1.50	$1.35	$1.05
7808/LM340T8	+8V	1A	TO-220	ZV-1508	$1.50	$1.35	$1.05
7809/LM340T9	+9V	1A	TO-220	ZV-1509	$1.50	$1.35	$1.05
7812/LM340T12	+12V	1A	TO-220	ZV-1512	$1.50	$1.35	$1.05
7815/LM340T15	+15V	1A	TO-220	ZV-1515	$1.50	$1.35	$1.05
7824/LM340T24	+24V	1A	TO-220	ZV-1524	$1.50	$1.35	$1.05
78L05	+5V	100mA	TO-92	ZV-1539	$1.25	$1.10	$0.85
78L12	+12V	100mA	TO-92	ZV-1542	$1.25	$1.10	$0.85
7905/LM320T5	-5V	1A	TO-220	ZV-1525	$1.50	$1.35	$1.05
7909/LM320T9	-9V	1A	TO-220	ZV-1530	$1.50	$1.35	$1.05
7912/LM320T12	-12V	1A	TO-220	ZV-1532	$1.50	$1.35	$1.05
7915/LM320T15	-15V	1A	TO-220	ZV-1535	$1.50	$1.35	$1.05
LM317K	+1.2 to +37V	1.5A	TO-3	ZV-1610	$5.95	$5.25	$4.15
LM317T	+1.2 to +37V	1.5A	TO-220	ZV-1615	$2.65	$2.30	$1.85
LM337T	-1.2 to -37V	1.5A	TO-220	ZV-1620	$3.75	$3.30	$2.60
LM338K	+1.2 to +32V	5A	TO-3	ZV-1630	$14.95	$13.35	$10.35
LM350K	+1.2 to +33V	3A	TO-3	ZV-1635	$12.95	$11.35	$8.95
LM723CN	+2.0 to +37V	150mA	DIP14	ZV-1676	$1.95	$1.75	$1.35
MC78T05	+5V	3A	TO-220	ZV-1632	$4.45	$3.95	$2.95
MC78T12	+12V	3A	TO-220	ZV-1634	$4.45	$3.95	$2.95

Switching Voltage Regulators

Type		Vout	Iout	Case	Cat.	Qty 1+	Qty 10+	Qty 25+
LM2576T-ADJ	Stepdown	+1.23 to +37V	3A	TO-220	ZV-1640	$14.95	$13.35	$10.35
LM2577T-12	Stepup	+12V	3A	TO-220	ZV-1642	$14.95	$13.35	$10.35
LM2678T-5.0	Stepdown	+5V	5A	TO-220	ZV-1636	$14.95	$13.35	$10.35
LM2678T-12	Stepdown	+12V	5A	TO-220	ZV-1637	$14.95	$13.35	$10.35
LM2678T-ADJ	Stepdown	+1.2 to +37V	5A	TO-220	ZV-1638	$14.95	$13.35	$10.35
TL499ACP	Controller	+2.9 to +30V	100mA	DIP8	ZV-1644	$3.50	$3.15	$2.45

Low Dropout Regulators

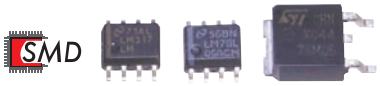
Type	Description	Case	Vin (Typ)	Vout	Iout (max)	Vdrop (Vout-Vin)	Cat.	Qty 1+	Qty 10+	Qty 25+
LM3940	Fixed voltage	TO-220	4.5 to 5.5V	+3.3V	1.0A	500mV at 1A	ZV-1565	$3.50	$3.15	$2.45
LM2936-3.3	Ultra low quiescent current	TO-92	4.0 to 26V	+3.3V	50mA	200mV at 50mA	ZV-1650	$3.85	$3.45	$2.75
LP2951ACN	Micropower adjustable voltage	DIP8	2.0 to 30V	+1.24 to +29V	100mA	380mV at 100mA	ZV-1562	$7.55	$6.75	$5.25
LM2940CT-5.0	Fixed voltage	TO-220	6.25 to 26V	+5V	1.0A	500mV at 1A	ZV-1560	$7.55	$6.75	$5.25
LM2940CT-12	Fixed voltage	TO-220	13.6 to 26V	+12V	1.0A	500mV at 1A	ZV-1646	$2.00	$1.80	$1.40
LM2936-5.0	Ultra low quiescent current	TO-92	5.5 to 26V	+5V	50mA	200mV at 50mA	ZV-1652	$3.85	$3.45	$2.75
LM1085IT-12	Fixed voltage, high current	TO-220	13.5 to 25V	+12V	3.0A	1.3V at 3A	ZV-1564	$7.95	$6.95	$5.50
LP2950ACZ-5.0	Micropower fixed voltage	TO-92	6.0 to 30V	+5V	100mA	380mV at 100mA	ZV-1645	$1.45	$1.30	$0.99
MCP1703-5002E/CB	Ultra low quiescent current	SOT-23	5.33 to 16V	+5V	250mA	330mV at 250mA	ZV-1545	$19.95	$17.70	$13.70
REG103-A	Ultra low dropout	SOT-23	2.1 to 16V	+1.3V to +5.5V	500mA	115mV at 500mA	ZV-1654	$10.45	$9.25	$7.25

Regulators

VOLTAGE REGULATORS (CONTINUED)

SMD Voltage Regulators

- All 100mA
- Sold as a pack of 10



Type	Voltage	Case	Cat.	Qty 1+	Qty 10+	Qty 25+
LM317LMX	+ADJ	SOIC8	ZV-1612	$19.95	$17.70	$13.70
MC78L05	+5V Fixed	SOIC8	ZV-1540	$9.95	$8.75	$6.75
MC78L08	+8V Fixed	SOIC8	ZV-1546	$9.95	$8.75	$6.75
MC78L12	+12V Fixed	SOIC8	ZV-1548	$9.95	$8.75	$6.75
MC78M05	+5V Fixed	DPAK	ZV-1544	$9.95	$8.75	$6.75
MC78M12CDT	+12V Fixed	DPAK	ZV-1510	$14.95	$13.35	$10.35
MC78M15CDT	+15V Fixed	DPAK	ZV-1552	$19.95	$17.70	$13.70
MC79L12	-12V Fixed	SOIC8	ZV-1550	$9.95	$8.75	$6.75
SMICLM317M	+ADJ	DPAK	ZV-1583	$19.95	$17.70	$13.70

SMD Voltage Regulators - 30 Pack

Mixed pack of SMD voltage regulators

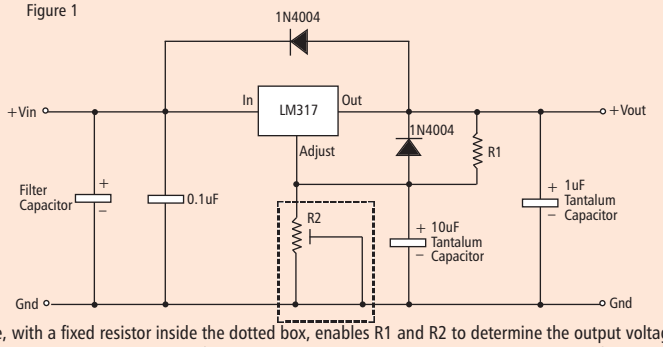
- 8 Values

Type	Voltage	Case	Quantity
MC78L05	+5V	SOIC8	6pcs
MC78M05	+5V	DPAK	6pcs
MC78L08	+8V	SOIC8	2pcs
MC78L12	+12V	SOIC8	2pcs
MC79L12	-12V	SOIC8	2pcs
MC78M15CDT	+15V	DPAK	2pcs
SMICLM317M	+ADJ	DPAK	4pcs
LM317LMX	+ADJ	SOIC8	6pcs

Cat.	Qty 1+	Qty 10+	Qty 25+
ZV-1616	$17.95	$15.95	$12.35

ADJUSTABLE VOLTAGE REGULATORS

Figure 1



The circuit above, with a fixed resistor inside the dotted box, enables R1 and R2 to determine the output voltage of a regulated power supply. R1 and R2 basically form a voltage divider accross the output voltage. Manufacturer's data tells us that the regulator needs a nominal 1.25V accross R1. In all practical cases, this resistor is 120Ω. R2, then effectively sets the output voltage. R2 can be calculated as shown above.

In all cases Vin must exceed Vout by at least 2.5V for proper regulation, but the greater the input voltage margin in excess of 2.5V the greater the dissipation in the voltage regulator device. For fixed outputs therefore, proper selection of DC source voltage will minimise this dissipation.

Note: The capacitors in the circuit are used for ripple rejection and to keep the circuit from oscillating (ringing). They should be mounted as close to the regulator and earth as possible along with R1. The diodes protect the IC from short circuits at Vout or Vin.

For applications where the output voltage must be varied (such as a bench power supply), R2 should be a trimpot or full rotary potentiometer. Whilst the LM317 will cope with a range of 1.5 - 37V practical limitations prevent this from happening at full current.

The circuit above is the simplest configuration for a variable power supply. R2 can nominally be 5kΩ in this case. Dissipation in the LM317 will become excessive when Vin exceeds Vout by more than 13V at 1.5A.

$R2 = (96 \times Vout) - R1$

Vout can be calculated thus:

$$Vout = (1+\frac{R2}{R1})\ V_{ref}$$

where Vref is the internal reference voltage of 1.25V

An example: 18V output required

$R2 = (96 \times 18) - 120$

$= 1728 - 120$

$R2 = 1608\Omega$ or 1.6K

$$Vout = (1 + \frac{R2}{R1})\ V_{ref}$$

$$= (1 + \frac{1608}{120}) \times 1.25$$

$$= (1 + 13.4) \times 1.25$$

$$= 14.4 \times 1.25$$

$\therefore$ Vout = 18V

INCREASING THE OUTPUT VOLTAGE

If you only have a 7805 or a 7905 regulator, and want a regulated 6V power supply, this can be accomplished with the basic circuit and formula below. As you can see, R1 is 200Ω and R2 40Ω. 220Ω and 39Ω resistors may be safely substituted in this case. Equally close standard value resistors can be substituted in other cases, as in using 470Ω resistor where calculations suggest 480Ω (below).

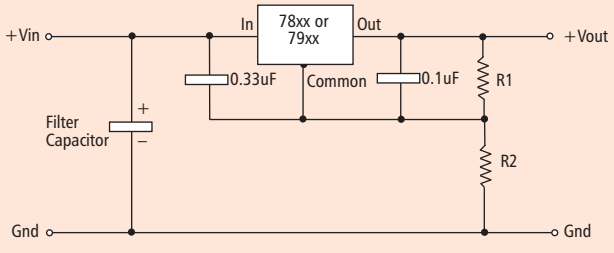
Example. 6V from 7805

$$R1 = \frac{Vreg}{0.025} = \frac{5}{0.025} = 200\Omega$$

Where:
+Vout = required output voltage
+Vin = input voltage
Vreg = fixed regulator voltage eg. 7805 = 5V

Vout	Regulator Type	R1Ω	R2Ω
9	7805	200	160
15	7812	480	120

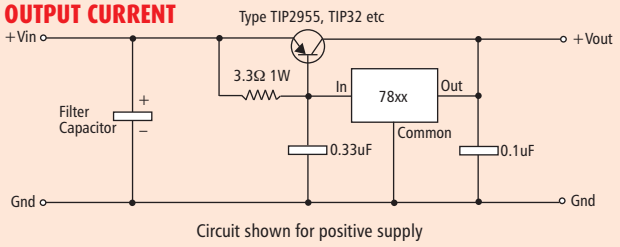
$$R2 = \frac{(Vout - Vreg)}{0.025} = \frac{6 - 5}{0.025} = 40\Omega$$



INCREASING THE OUTPUT CURRENT

If more than one amp is needed, this can be accomplished by using a higher current fixed regulator, which is not only expensive, but sometimes scarce, or by using a series pass power transistor as shown in the circuit below. Note that the power transformer and bridge rectifier must be capable of providing the extra current. The value of the filter capacitor will also have to be increased substantially as well. Apart from this, the output current is only limited by the current rating of the power transistor used.

INCREASING OUTPUT VOLTAGE AND CURRENT SIMPLY COMBINE THE TWO CIRCUITS ABOVE



Circuit shown for positive supply

SCR'S / TRIAC'S / DIAC'S

SCRs

SILICON CONTROLLED RECTIFIERS - Reverse blocking thyristors glassivated PNPN devices designed for high volume consumer applications such as temperature, light and speed control, process and remote control and warning systems where reliabilty of operation is important.

- Glassivated surface for reliabilty and uniformity
- Power rated at economical prices • Sensitive gate triggering
- Practical level triggering and holding characteristics
- Flat, rugged, thermopad construction for low thermal resistance, high heat dissipation and durabilty.

TO-126

Type	Vmax	IE(A)	VF(V)	IG(μA)	VG(V)	Hold In(mA)	Cat.
BT169D	400	0.8	1.2	50	0.5	2	ZX-7010
C106D1	400	4	2.2	200	0.8	3	ZX-7006
C122E / MCR8M / BT151	500	8	1.8	25mA	1	30	ZX-7012

	Voltage	Cat.	Qty 1+	Qty 10+	Qty 25+
BT169D	400V	ZX-7010	$2.60	$2.30	$1.80
CI06D1	400V	ZX-7006	$2.50	$2.21	$1.75
C122E / MCR8M / BT151	500V	ZX-7012	$4.45	$3.95	$2.95

TRIACs

Type	Vmax	IE(A)	VF(V)	IG(mA)	VG(V)	Hold In(mA)	Cat.
SC141D	400	6	2	50	2.5	50	ZX-7141
SC151D	400	15	1.6	50	2	50	ZX-7145
TAG225	400	5	2	25	2.5	25	ZX-7147
BT137X	600	8	1.65	25	1.5	<20	ZX-7149*

TO-220

*Note: ZX-7149 is isotab - mounting tab is dielectrically isolated.

	Voltage	Cat.	Qty 1+	Qty 10+	Qty 25+
SC141D	400V	ZX-7141	$4.45	$3.95	$2.95
SC151D	400V	ZX-7145	$5.50	$4.90	$3.75
TAC225	400V	ZX-7147	$3.50	$3.15	$2.45
BT137X	400V	ZX-7149	$3.20	$2.83	$2.15

DIAC

- Will trigger most devices above with a suitable timing circuit (DO-41)

Type	VCO	IFmax	ISW	VSW	Cat.	Qty 1+	Qty 10+	Qty 25+
ST2	3.5V	5mA	27	35V	ZX-7192	$1.50	$1.35	$1.05

THERMISTORS

Negative Temperature Coefficient Thermistors

These devices are made of a special ceramic material which changes resistance value rapidly with temperature increase. They are commonly used to check thermal runaway in bipolar transistor amplifiers etc, but really have dozens of other uses. They are rugged and very reliable.

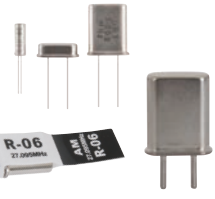
- Resistance at 25°C +/- 10%
- Temperature Range -20°C ~ +125°C
- Radial type, dipped epoxy
- Type-NTC Ceramic material with tinned copper lead
- Dissipation (MAX) 500mW
- Case 5mm diameter
- Thermal dissapation constant: 6mW/°C

Resistance (Ω)	Max Current (mA)	Cat.	Qty 1+	Qty 25+	Qty 100+
15	250	RN-3430	$1.35	$0.90	$0.80
100	200	RN-3432	$1.35	$0.90	$0.80
500	100	RN-3434	$1.35	$0.90	$0.80
1k	80	RN-3436	$1.35	$0.90	$0.80
4.7k	45	RN-3438	$1.35	$0.90	$0.80
10k	30	RN-3440	$1.35	$0.90	$0.80
47k	20	RN-3442	$1.35	$0.90	$0.80
100k	15	RN-3444	$1.35	$0.90	$0.80

CRYSTALS

Crystals

Freq Tolerance: +/- 30Hz per 1MHz.
Operating Temp: -20 to +70°C. Load Capac: 30pF typ.
Note: Will be stocking low profile case types when old stock is exhausted.



RC Crystal TX/RX

- Used in remote control circuits
- Supplied as a pair

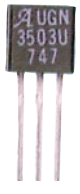
	Cat.	Qty 1+	Qty 10+	Qty 25+
27.095MHz	RQ-5275	$8.95	$6.25	$5.25
27.125MHz	RQ-5276	$8.95	$6.25	$5.25
27.145MHz	RQ-5277	$8.95	$6.25	$5.25
27.175MHz	RQ-5278	$8.95	$6.25	$5.25
27.195MHz	RQ-5279	$8.95	$6.25	$5.25

Freq.(MHz)	WxDxH(mm)	Case	Max ESR	Cat.	Qty 1+	Qty 10+	Qty 25+
2.00	10x3.5x13	HC18K	500Ω	RQ-5268	$3.50	$3.15	$2.75
3.2768	10x3.5x13	HC49U	90Ω	RQ-5271	$3.50	$3.15	$2.75
3.5795	10x3.5x13	HC49U	90Ω	RQ-5272	$3.50	$3.15	$2.75
4.000	10x3.5x13	HC49U	70Ω	RQ-5274	$3.50	$3.15	$2.75
4.433619	10x3.5x3.5	HC49US	70Ω	RQ-5284	$3.50	$3.15	$2.75
6.00	10x3.5x13	HC49U	60Ω	RQ-5285	$3.50	$3.15	$2.75
8.00	11.5x4.65x4	HC49US	30Ω	RQ-5287	$3.50	$3.15	$2.75
10.00 (P)	10x3.5x13	HC49U	30Ω	RQ-5289	$3.50	$3.15	$2.75
12.00	11.5x4.65x13.5	HL49U	30Ω	RQ-5293	$3.50	$3.15	$2.75
20.00	11.5x4.65x4	HC49US	25Ω	RQ-5299	$3.50	$3.15	$2.75
32.768kHz	3.1x3.1x8	DT38	35kΩ	RQ-5297	$3.50	$3.15	$2.75
38kHz Mini	3x8.5		40Ω	RQ-5298	$3.50	$3.15	$2.75

HALL EFFECT SWITCHES

Hall Effect Sensor

UGN3503U HALL EFFECT SENSOR IC
A miniature sensor to accurately track extremely small changes in magnetic flux density - changes generally too small to operate Hall effect switches. Applications include notch sensor, current monitor, gear tooth sensor, etc.

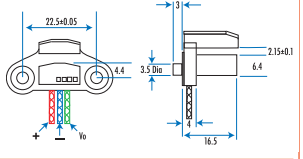


Specifications	
Operating voltage	4.5 - 6VDC
Supply current	Typ. 9mA
Output voltage	Typ. 2.5V DC
Output resistance	50Ω
Size	4.5(W) x 4.5(H) x 1.5(D)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
UGN3503U	ZD-1902	$5.75	$4.95	$4.60

HKZ-101 Hall Effect Switch

This device is a rugged Hall effect switch designed for automotive ignition applications. This device consists of a Hall effect semiconductor sensor separated across a small gap by a magnet. In its normal state the Hall sensor (with inbuilt output transistor) is conducting. It will sink up to 40mA between the impressive temperature range of -40 to +150 degrees C. When an iron vane is introduced into the gap between the Hall element and the magnet, the output transistor switches off. The sensor is hermetically sealed, resistant to petroleum products and incorporates metal bushed mounting holes to facilitate fitting to a carrier plate, bracket etc. It is ideal as the commutator for an electronic ignition; however it has many other usage areas. Lead connections: Red V+, Black earth, Green signal (on/off).



	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1900	$19.95	$17.70	$15.70

PRESSURE SENSOR

Pressure Differential Sensor

The ZD-1904 piezo resistive pressure sensor provides a very accurate and linear voltage output directly proportional to the applied pressure. The sensor housed a single monolithic silicon die with a strain gauge and thin film resistor network on each chip.

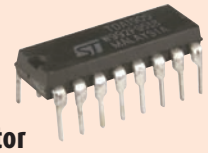
- 0°C to 85°C temperature compensation
- 0 to 10kPa (0 to 1.45 psi)
- 25mV full scale span

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1904	$39.95	$35.90	$31.90

TECH TIP

SEMICONDUCTOR DATA

Data on over 3,500 devices and their derivatives can be found on the Jaycar website. Simply go to www.jaycar.com.au/semiconductor and search for the part you need data for.



LINEAR ICs

Through Hole

- Major brands only

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
AN7511	8	Balanced transformerless audio amp 1W	ZL-3388	$2.55	$2.25	$1.75
BA1404	18	FM stereo transmitter	ZL-3995	$5.50	$4.90	$3.75
CA3140	8	4.5MHz BiMOS op-amp	ZL-3835	$3.20	$2.83	$2.15
CA3130	8	15MHz BiMOS op-amp	ZL-3860	$4.50	$3.95	$3.15
INA126PA	8	Micropower Instrument Amp	ZL-3976	$5.95	$5.25	$4.15
LM301	8	High performance op-amp	ZL-3301	$1.75	$1.55	$1.20
LM308	8	Precision op-amp	ZL-3308	$10.95	$9.75	$7.50
LM311	8	Voltage comparator	ZL-3311	$1.65	$1.45	$1.15
LM319	14	High speed dual comparator	ZL-3319	$3.45	$3.05	$2.30
LM324	14	Quad low power op-amp	ZL-3324	$1.85	$1.65	$1.25
LM334Z	3	Adjustable current source	ZL-3334	$2.30	$2.03	$1.60
LM335Z	3	Temperature sensor TO92	ZL-3336	$3.95	$3.45	$2.75
LM339	14	Quad low power comparator	ZL-3339	$1.65	$1.45	$1.15
LM348	14	Quad 741 op-amp	ZL-3348	$2.35	$2.09	$1.60
LM358	8	Dual low power op-amp	ZL-3358	$1.75	$1.55	$1.20
LM380	14	Audio power amp 2.5W	ZL-3380	$2.95	$2.60	$1.95
LM386N-1	8	Low voltage audio amp 325mW	ZL-3386	$2.25	$1.95	$1.55
LM393	8	Low power dual comparator	ZL-3393	$1.75	$1.55	$1.20
LM567	8	Low power tone decoder	ZL-3567	$3.20	$2.83	$2.15
LM741	8	General purpose op-amp	ZL-3741	$1.65	$1.45	$1.15
LM747	14	Dual op-amp	ZL-3747	$4.95	$4.45	$3.45
LM833N	14	Dual low noise opamp	ZL-3833	$2.85	$2.53	$1.95
LM1458	8	Dual op-amp	ZL-3753	$1.50	$1.35	$1.05
LM1875	5	25W audio power amplifier	ZL-3755	$5.95	$5.25	$4.15
LM2917	14	Frequency to voltage convertor	ZL-3930	$5.95	$5.25	$4.15
LM3875T	11	56W audio power amplifier	ZL-3752	$15.95	$14.35	$10.95
LM3876	11	56W audio power amplifier + mute	ZL-3756	$15.95	$14.35	$10.95
LM3900	14	Quad op-amp	ZL-3900	$2.50	$2.21	$1.75
LM3914	18	LED bar/dot driver (linear)	ZL-3914	$7.50	$6.75	$5.25
LM3915	18	LED bar/dot driver (logarithmic)	ZL-3915	$7.50	$6.75	$5.25
LM4136	14	Quad high performance op-amp	ZL-3936	$2.50	$2.21	$1.75
LM4558	8	Dual high performance op-amp	ZL-3958	$1.50	$1.35	$1.05
LM7555	8	CMOS timer	ZL-3455	$1.95	$1.70	$1.15
LMC6482AIN	8	Dual CMOS op-amp	ZL-3482	$4.95	$4.45	$3.45
LMC6484AIN	14	Quad CMOS op-amp	ZL-3484	$6.95	$6.25	$4.75
NE555	8	555 timer	ZL-3555	$1.25	$1.10	$0.85
NE556	14	Dual 555 timer	ZL-3556	$1.75	$1.55	$1.20
NE5534N	8	Low noise op-amp	ZL-3970	$3.45	$3.05	$2.30
NE5534AN	8	Ultra low noise op-amp	ZL-3971	$4.50	$3.95	$3.15
OP07C/D	8	Precision op-amp	ZL-3974	$4.35	$3.90	$2.95
OPA2134PA	8	Dual high perf audio op-amp	ZL-3972	$8.45	$7.50	$5.75
TL071/LF351	8	Single low noise JFET op-amp	ZL-3071	$1.95	$1.75	$1.35
TL072/LF353	8	Dual low noise JFET op-amp	ZL-3072	$1.95	$1.75	$1.35
TL074/LF347	14	Quad low noise JFET op-amp	ZL-3074	$2.50	$2.21	$1.75
TL084	14	Quad JFET op-amp	ZL-3084	$2.20	$1.95	$1.50

Precision Low Offset Op-amp

Ideal for applications requiring input offset voltages and long term stability (drift) orders of magnitude lower than your general purpose op-amps. This is extremely important in instrumentation applications, data acquisition, etc. The true differential input, with a wide input-voltage range and outstanding common-mode rejection, provides maximum flexibility and performance in high-noise environments and in noninverting applications. The OP07 is unsurpassed for low-noise, high-accuracy amplification of very low-level signals, and circuits that have need to monitor precise DC voltages.

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
OP07C/D	8	Precision low offset op-amp	ZL-3974	$4.35	$3.90	$2.95

Dual & Quad CMOS Op-amps

These are CMOS rail-to-rail op-amps that provide a common-mode range that extends to both supply rails. This rail-to-rail performance combined with excellent accuracy, due to high CMRR, makes it unique among rail-to-rail input amplifiers. It is very useful for data acquisition voltages that require a large input signal range. The rail-to-rail output swing is guaranteed for loads down to 600Ω. Guaranteed low voltage characteristics and low power dissipation make the LMC6482 & LMC 6284 especially well-suited for battery-operated systems. They are an excellent dual & quad instrumentation op-amps.

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
LMC6482AIN	8	Dual CMOS rail-to-rail op-amp	ZL-3482	$4.95	$4.45	$3.45
LMC6484AIN	14	Quad CMOS rail-to-rail op-amp	ZL-3484	$6.95	$6.25	$4.75

SMD Linear ICs

SMD

- Packs of 10

Type	Case	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
LM324M	SOIC14	Quad low power op-amp	ZL-3342	$26.95	$23.95	$18.70
LM339M	SOIC14	Quad low power comparatar	ZL-3344	$26.95	$23.95	$18.70
LM358D	SOIC8	Dual low power op-amp	ZL-3340	$23.95	$21.35	$16.70
M7555CD	SOIC8	CMOS 555 timer	ZL-3545	$19.95	$17.70	$13.70
TL074CD	SOIC14	Quad low noise JFET op-amp	ZL-3078	$29.95	$26.90	$20.70
TL072CD	SOIC8	Dual low noise JFET op-amp	ZL-3076	$22.95	$20.35	$15.95
µA741CD	SOIC8	General purpose op-amp	ZL-3070	$19.95	$17.70	$13.70

SMD 555 & 556 Dual Timer ICs

- Timing from microseconds through hours
- Operates in both astable and monostable modes
- Adjustable duty cycle
- Output can source or sink 200mA
- Output and supply TTL compatible
- Temperature stabilty better than 0.005% per °C
- Normally on and normally off output
- Sold as a pack of 10

Applications:

- Precision timing
- Pulse generation
- Sequential timing
- Time delay generation
- Pulse width modulation
- Pulse position modulation
- Linear ramp generator

SMD

Type	Case	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
NE555D	SOIC8	555 timer	ZL-3550	$11.95	$10.70	$8.25
NE556D	SOIC14	Dual 555 timer	ZL-3558	$23.95	$21.35	$16.70

74LS SERIES

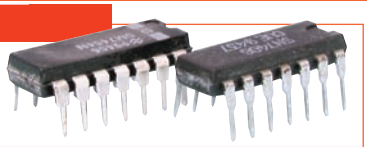
- Low power Schottky logic
- Major brands only

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
74LS00	14	Quad 2 input NAND gate	ZS-5000	$0.60	$0.50	$0.35
74LS01	14	Quad 2 input NAND gate (OC)	ZS-5001	$0.60	$0.50	$0.35
74LS02	14	Quad 2 input NOR gate	ZS-5002	$0.75	$0.65	$0.60
74LS04	14	Hex inverter	ZS-5004	$0.60	$0.50	$0.35
74LS05	14	Hex inverter (OC)	ZS-5005	$0.60	$0.50	$0.35
74LS08	14	Quad 2 input AND gate	ZS-5008	$0.85	$0.72	$0.50
74LS10	14	Triple 3 input NAND gate	ZS-5010	$1.15	$1.01	$0.90
74LS11	14	Triple 3 input AND gate	ZS-5011	$1.15	$1.01	$0.90
74LS14	14	Hex schmitt trigger inverter	ZS-5014	$0.95	$0.85	$0.75
74LS20	14	Dual 4 input NAND gate	ZS-5020	$0.85	$0.75	$0.65
74LS27	14	Triple 3 input NOR gate	ZS-5027	$0.85	$0.75	$0.65
74LS30	14	Single 8 input NAND gate	ZS-5030	$0.85	$0.75	$0.65
74LS32	14	Quad 2 input OR gate	ZS-5032	$0.85	$0.75	$0.65
74LS42	16	BCD to decimal decoder	ZS-5042	$1.95	$1.75	$1.55
74LS47	16	BCD to 7 seg decoder/driver (OC)	ZS-5047	$1.75	$1.55	$1.40
74LS48	16	BCD to 7 segment decoder	ZS-5048	$2.50	$2.21	$1.95
74LS73	14	Dual JK flip-flop + clear	ZS-5073	$1.95	$1.75	$1.55
74LS74	14	Dual D flip-flop + preset + clear	ZS-5074	$1.30	$1.15	$1.01
74LS75	16	4 bit bi-stable latch	ZS-5075	$1.50	$1.35	$1.20
74LS76	16	Dual JK flip-flop + preset + clear	ZS-5076	$2.95	$2.60	$2.30
74LS85	16	4 bit magnitude comparator	ZS-5085	$1.75	$1.55	$1.40
74LS86	14	Quad 2 input exclusive OR gate	ZS-5086	$1.25	$1.10	$0.97
74LS90	14	Decade counter	ZS-5090	$1.65	$1.45	$1.30
74LS93	14	4 bit binary counter	ZS-5093	$2.20	$1.95	$1.75
74LS109	16	Dual JK flip-flop + preset + clear	ZS-5109	$1.20	$1.05	$0.95
74LS123	16	Dual retrig monostable with clear	ZS-5123	$1.75	$1.55	$1.40
74LS125	14	Quad tri-state buffer	ZS-5125	$1.75	$1.55	$1.40
74LS138	16	3 to 8 line decoder/demux	ZS-5138	$1.45	$1.30	$1.15
74LS139	16	Dual 2 to 4 line decoder/demux	ZS-5139	$0.95	$0.85	$0.75
74LS151	16	Single 8 input multiplexer	ZS-5151	$1.75	$1.55	$1.40
74LS153	16	Dual 4 input multiplexer	ZS-5153	$1.50	$1.35	$1.20
74LS155	16	Dual 2 to 4 line decoder/demux	ZS-5155	$2.20	$1.95	$1.75
74LS157	16	Quad 2 to 1 line multiplexer	ZS-5157	$1.45	$1.30	$1.15
74LS161	16	4 bit binary counter (async. reset)	ZS-5161	$1.50	$1.35	$1.20
74LS164	14	8 bit shift register (ser. in/par. out)	ZS-5164	$1.20	$1.05	$0.95
74LS174	16	Hex D flip-flop + clear	ZS-5174	$1.95	$1.75	$1.55
74LS175	16	Quad D flip-flop with clear	ZS-5175	$1.15	$1.01	$0.90
74LS192	16	Up/down dec counter/dual clock	ZS-5192	$2.20	$1.95	$1.75
74LS193	16	Up/down bin counter/dual clock	ZS-5193	$1.50	$1.35	$1.20
74LS221	16	Dual monostable multivibrator	ZS-5221	$1.65	$1.45	$1.30
74LS240	20	Octal tri-state buffer (inverting)	ZS-5240	$1.35	$1.15	$0.80
74LS241	20	Octal tri-state buffer (non-inverting)	ZS-5241	$1.95	$1.70	$1.15
74LS244	20	Octal tri-state buffer (non-inverting)	ZS-5244	$1.95	$1.70	$1.15
74LS245	20	Octal tri-state bus transceiver	ZS-5245	$1.95	$1.70	$1.15
74LS273	20	Octal D flip-flop + clear	ZS-5373	$2.20	$1.95	$1.75
74LS283	16	4 bit binary full adder + carry	ZS-5263	$1.95	$1.70	$1.15
74LS373	20	Octal tri-state transparent latch	ZS-5273	$1.50	$1.35	$1.20
74LS374	20	Octal tri-state D flip-flop	ZS-5274	$1.50	$1.35	$1.20

This colour pricebar denotes a Clearance item - check for specials.

TTL SERIES

- Standard TTL logic
- Major brands only



Type	Pin	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
7404	14	Hex inverter	ZS-5804	$2.20	$1.90	$1.30
7405	14	Hex inverter with OC outputs	ZL-3405	$2.20	$1.90	$1.30
7406	14	Hex inverter with 30V OC outputs	ZS-5806	$2.20	$1.90	$1.30
7407	14	Hex buffer with 30V OC outputs	ZS-5807	$1.35	$1.15	$0.80

NON STATIC SHEETING

Conductive Foam

Non-static sheeting for storing CMOS, ICs, LSIs, etc.

- Will store up to 150 ICs on one sheet
- Reusable.
- Size 225x150mm.

↗	Cat.	Qty 1+	Qty 3+	Qty 6+
	ZV-9998	$9.95	$8.75	$6.75

74HC SERIES

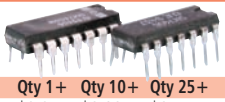
- High speed CMOS logic
- Major brands only

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
74HC00	14	Quad 2 input NAND gate	ZC-4800	$0.95	$0.80	$0.55
74HC02	14	Quad 2 input NOR gate	ZC-4802	$1.15	$0.99	$0.65
74HC04	14	Hex inverter	ZC-4804	$1.15	$0.99	$0.65
74HC08	14	Quad 2 input AND gate	ZC-4808	$1.15	$0.99	$0.65
74HC10	14	Triple 3 input NAND gate	ZC-4810	$1.15	$0.99	$0.65
74HC14	14	Hex schmitt trig inverter	ZC-4821	$1.15	$0.99	$0.65
74HC27	14	Triple 3 input NOR gate	ZC-4827	$1.15	$0.99	$0.65
74HC30	14	8 input NAND gate	ZC-4811	$1.15	$0.99	$0.65
74HC32	14	Quad 2 input OR gate	ZC-4823	$1.15	$0.99	$0.65
74HC42	16	BCD to decimal decoder	ZC-4826	$2.45	$2.15	$1.45
74HC51	14	Dual 2 wide/2 input, 2 wide/3 input AND-OR-INVERT gate	ZC-4828	$1.95	$1.70	$1.15
74HC73	14	Dual JK flip-flop + clear	ZC-4829	$1.95	$1.70	$1.15
74HC74	14	Dual D flip-flop + preset + clear	ZC-4830	$1.00	$0.85	$0.60
74HC76	16	Dual JK flip-flop + preset + clear	ZC-4832	$1.95	$1.70	$1.15
74HC85	16	4 bit magnitude comparator	ZC-4834	$1.95	$1.70	$1.15
74HC86	14	Quad 2 input exclusive OR gates	ZC-4835	$1.25	$1.10	$0.75
74HC107	14	Dual JK flip-flop + clear	ZC-4837	$2.25	$1.95	$1.35
74HC123	16	Dual retrig monostable multivibrator + clear	ZC-4840	$1.95	$1.70	$1.15
74HC125	14	Quad tri-state buffer (non-inverting)	ZC-4842	$1.75	$1.50	$1.05
74HC132	14	Quad 2 input NAND gate + schmitt trig	ZC-4844	$1.75	$1.50	$1.05

Type	Pins	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
74HC138	16	3 to 8 line decoder/demux	ZC-4846	$1.95	$1.70	$1.15
74HC139	16	Dual 2 to 4 line decoder/demux	ZC-4848	$1.95	$1.70	$1.15
74HC151	16	8 to 1 line multiplexer	ZC-4849	$1.95	$1.70	$1.15
74HC154	24	4 to 16 line decoder/demux	ZC-4850	$3.50	$2.95	$2.05
74HC157	16	Quad 2 line to 1 line multiplexer	ZC-4853	$1.50	$1.30	$0.90
74HC160	16	Synch 4 bit BCD counter + preset	ZC-4855	$2.35	$2.03	$1.40
74HC161	16	Synch 4 bit binary counter + preset	ZC-4856	$2.25	$1.95	$1.35
74HC164	14	8 bit ser-in/par-out shift reg	ZC-4857	$1.50	$1.30	$0.90
74HC165	16	8 bit par-in/ser-out shift reg	ZC-4858	$1.50	$1.30	$0.90
74HC174	16	Hex D flip-flop + clear	ZC-4862	$1.75	$1.50	$1.05
74HC193	16	Synch 4 bit binary up/down counter	ZC-4864	$1.75	$1.50	$1.05
74HC221	16	Dual monostable multivibrator	ZC-4865	$2.75	$2.38	$1.65
74HC240	20	Octal tri-state buffer (inverting)	ZC-4867	$2.50	$2.15	$1.50
74HC244	20	Octal tri-state buffer (non-inverting)	ZC-4869	$1.75	$1.50	$1.05
74HC245	20	Octal tri-state transceiver	ZC-4870	$1.75	$1.50	$1.05
74HC367	16	Hex tri-state buffer	ZC-4872	$1.95	$1.70	$1.15
74HC373	20	Octal tri-state transparent latch	ZC-4874	$1.75	$1.50	$1.05
74HC374	20	Octal tri-state D flip-flop	ZC-4875	$1.95	$1.70	$1.15
74HC393	14	Dual 4 bit binary counter	ZC-4880	$2.25	$1.95	$1.35
74HC573	20	Octal tri-state transparent D latch	ZC-4890	$2.50	$2.15	$1.50
74HC595	16	8 bit tri-state ser-in/ser+ par-out shift reg	ZC-4895	$2.95	$2.53	$1.75
74HC4066	14	Quad bilateral analog switch	ZC-4892	$0.95	$0.80	$0.55

CMOS SERIES

- Standard CMOS logic
- Major brands only

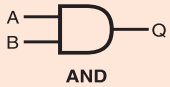


Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
4001	14	Quad 2 input NOR gate	ZC-4001	$0.95	$0.80	$0.55
4007	14	Dual comp pair plus inverter	ZC-4007	$1.15	$0.99	$0.65
4009	16	Hex buffer (inverting)	ZC-4009	$1.45	$1.25	$0.85
4011	14	Quad 2 input NAND gate	ZC-4011	$0.95	$0.80	$0.55
4012	14	Dual 4 input NAND Gate	ZC-4012	$0.95	$0.80	$0.55
4013	14	Dual D flip-flop	ZC-4013	$0.95	$0.80	$0.55
4015	16	Dual 4 bit static shift register	ZC-4015	$1.45	$1.25	$0.85
4016	14	Quad bi-lateral switch	ZC-4016	$0.95	$0.80	$0.55
4017	16	Decade counter/divider	ZC-4017	$0.95	$0.80	$0.55
4018	16	Presettable divide by N counter	ZC-4018	$2.45	$2.15	$1.45
4020	16	14-stage ripple carry binary counter	ZC-4020	$1.75	$1.50	$1.05
4021	16	8-stage static shift register	ZC-4021	$1.75	$1.50	$1.05
4022	16	Divide-by-8 counter/divider	ZC-4022	$1.75	$1.50	$1.05
4023	14	Triple 3 input NAND gate	ZC-4023	$1.00	$0.85	$0.60
4024	14	7-stage ripple carry binary counter	ZC-4024	$1.00	$0.85	$0.60
4025	14	Triple 3-input NOR gate	ZC-4025	$1.00	$0.85	$0.60
4026	16	Decade counter with 7 segment output	ZC-4026	$2.20	$1.90	$1.30
4027	16	Dual JK flip-flop	ZC-4027	$0.95	$0.80	$0.55
4028	16	BCD-to-Decimal Decoder	ZC-4028	$0.95	$0.80	$0.55
4029	16	Presettable bin/decade up/down cntr	ZC-4029	$1.50	$1.30	$0.90
4030	14	Quad 2 input exclusive OR gate	ZC-4030	$1.50	$1.30	$0.90
4040	16	12-stage ripple carry binary counter	ZC-4040	$1.50	$1.30	$0.90
4046	16	Micropower phase locked loop (PLL)	ZC-4046	$1.75	$1.50	$1.05
4047	14	Monostable/Astable multivibrator	ZC-4047	$1.95	$1.70	$1.15
4049	16	Hex buffer (inverting)	ZC-4049	$0.95	$0.80	$0.55
4050	16	Hex buffer (non-inverting)	ZC-4050	$0.95	$0.80	$0.55
4051	16	Single 8 channel analog mux/demux	ZC-4051	$1.45	$1.25	$0.85

Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
4052	16	Dual 4 channel analog mux/demux	ZC-4052	$0.95	$0.80	$0.55
4053	16	Triple 2 channel analog mux/demux	ZC-4053	$1.45	$1.25	$0.85
4056	16	BCD to 7seg LCD decoder/driver	ZC-4056	$2.45	$2.15	$1.45
4060	16	14-stage ripple carry binary counter	ZC-4060	$1.45	$1.25	$0.85
4066	14	Quad bi-lateral switch	ZC-4066	$0.90	$0.77	$0.52
4069	14	Hex inverter	ZC-4069	$0.95	$0.80	$0.55
4070	14	Quad 2 input exclusive OR gate	ZC-4070	$0.95	$0.80	$0.55
4071	14	Quad 2 input OR gate	ZC-4071	$0.95	$0.80	$0.55
4073	14	Triple 3 input AND gate	ZC-4073	$0.95	$0.80	$0.55
4075	14	Triple 3 input OR gate	ZC-4075	$1.50	$1.30	$0.90
4076	16	4 bit tri-state D-type register	ZC-4076	$1.50	$1.30	$0.90
4077	14	Quad 2 input exclusive NOR gate	ZC-4077	$1.50	$1.30	$0.90
4081	14	Quad 2 input AND gate	ZC-4081	$1.00	$0.85	$0.60
4093	14	Quad 2 input NAND schmitt trigger	ZC-4093	$1.35	$1.15	$0.80
4094	16	8-bit tri-state shift register/latch	ZC-4094	$1.35	$1.15	$0.80
40106	14	Hex schmitt trigger (inverting)	ZC-4914	$1.50	$1.30	$0.90
4502	16	Strobed hex tri-state inverter	ZC-4502	$1.95	$1.70	$1.15
4510	16	BCD up/down counter + preset	ZC-4510	$1.75	$1.50	$1.05
4511	16	BCD to 7seg decoder/driver	ZC-4511	$1.75	$1.50	$1.05
4514	24	4-bit latched 4 to 16 line decoder	ZC-4514	$4.45	$3.90	$2.60
4516	16	Binary up/down counter + preset	ZC-4516	$2.25	$1.95	$1.35
4518	16	Dual BCD up counter	ZC-4518	$1.95	$1.70	$1.15
4520	16	Dual binary up counter	ZC-4520	$1.75	$1.50	$1.05
4528	16	Dual monostable multivibrator	ZC-4528	$1.25	$1.10	$0.75
4538	16	Dual precision monostable multivibrator	ZC-4538	$2.25	$1.95	$1.35
4543	16	BCD to 7seg LCD latch/decoder/driver	ZC-4543	$1.50	$1.30	$0.90
4553	16	3 digit BCD counter	ZC-4553	$4.50	$3.90	$2.60

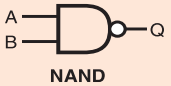
TECH TIP

BASIC LOGIC FUNCTIONS



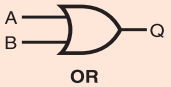
AND

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1



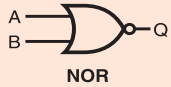
NAND

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	0



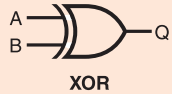
OR

A	B	Q
0	0	0
0	1	1
1	0	1
1	1	1



NOR

A	B	Q
0	0	1
0	1	0
1	0	0
1	1	0



XOR

A	B	Q
0	0	0
0	1	1
1	0	1
1	1	0

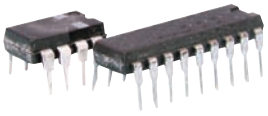
XNOR

A	B	Q
0	0	1
0	1	0
1	0	0
1	1	1

Microcontrollers

MICROCONTROLLER - PIC

Through Hole



Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
PIC12C508A-04P	8	8 Bit Micro	ZZ-8602	$2.45	$2.15	$1.70
PIC12C509A-04P	8	8 Bit Micro	ZZ-8600	$2.45	$2.15	$1.70
PIC12F675	8	8 bit flash micro	ZZ-8603	$4.85	$4.30	$3.30
PIC16C711-20/P	18	8 bit micro + A to D converter	ZZ-8550	$9.95	$8.75	$6.75
PIC16C63A-20I/SP	28	8 bit micro + A to D converter	ZZ-8560	$11.90	$10.70	$8.25
PIC16F84A-20I/P	18	8 bit flash/EEPROM micro	ZZ-8500	$9.80	$8.75	$6.75
PC16F88-I/P	18	8 bit enhanced flash micro + nanowatt technology	ZZ-8530	$9.15	$7.95	$6.25
PIC16F628-I/P	18	8 bit flash micro	ZZ-8520	$6.50	$5.75	$4.45
PIC16F877A-I/P	40	8 bit enhanced flash micro	ZZ-8540	$10.65	$9.50	$7.25

SMD

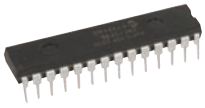
- Sold as a pack of 5

Type	Case	Description	Cat	Qty 1+	Qty 10+	Qty 25+
PIC12C508A-04/SM	SOIC8	8 bit micro	ZZ-8604	$10.50		
PIC12C509A-04/SM	SOIC8	8 bit micro	ZZ-8606	$10.50		
PIC16C711-20I/SO	SOIC18	8 bit micro + A to D converter	ZZ-8552	$39.00	$34.95	$27.45
PIC16F628A-20/SO	SOIC18	8 bit flash micro	ZZ-8510	$75.00	$67.50	$52.50
PIC16F84A-20/SO	SOIC18	8 bit flash/EEPROM micro	ZZ-8505	$49.00	$43.95	$34.45

Digital Signal Controllers

- High performance enhanced flash digital signal controllers
- 16 bit architecture

Type	Memory	SRAM
dsPIC30F2010	12kB/4kB	512B
dsPIC33FJ128GP802	128kB	16kB



Type	Pins	Cat.	Qty 1+	Qty 10+	Qty 25+
dsPIC30F2010	28	ZZ-8575	$14.30	$12.70	$9.95
dsPIC33FJ128GP802	28	ZZ-8605	$14.95	$13.35	$10.35

PIC18F4550 Microcontroller with USB Interface

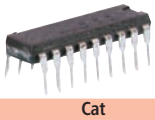
Adding a USB interface to a project can often be a complex and difficult task, often involving a dedicated IC just to perform the USB control. With this PIC, you can do both I/O logic with your project and perform the USB communications with just one IC. USB will still require a bit of work but it won't be as complex any more as having to source a dedicated IC and learn how to use it. This PIC is ideal for embedded control and monitoring applications which require connection to a computer for data up/download, or firmware updates.
This PIC is feature packed:

- Enhanced Flash and nanoWatt technology
- 2kB memory for data
- Full Speed USB 2.0 interface (12Mbps)
- I²C™ and SPI™ interface (10Mbps)
- Asynchronous serial port
- 48MHz performance (12MIPS)

Type	Cat	Qty 1+	Qty 10+	Qty 25+
PIC18F4550	ZZ-8570	$19.80	$17.70	$13.70

MICROCONTROLLER - ATMEL

ATMEL Microcontrollers



Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
AT89C2051-24PU	20	8 bit micro + 2kB flash memory	ZZ-8700	$4.70	$4.15	$3.15
AT90S2313-10PC	20	8 bit micro + 2kB flash memory	ZZ-8710	$9.70	$8.50	$6.75
AT90S1200-12PC	20	8 bit micro + 1kB flash memory	ZZ-8750	$9.95	$8.75	$6.75
ATmega8535-16PU	40	8 bit micro + 8kB flash memory	ZZ-8742	$14.95	$13.35	$10.35
ATmega16L-8PU	40	8 bit micro + 16kB flash memory	ZZ-8755	$16.80	$14.95	$11.70
ATmega32-16PU	40	8 bit micro + 32kB flash memory	ZZ-8760	$18.90	$16.95	$12.95
ATmega8515-16PU	40	8 bit micro + 8kB flash memory	ZZ-8765	$7.95	$6.95	$5.50

SMD ATMEL Microcontrollers

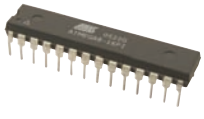
- Sold as a pack of 5

Type	Case	Description	Cat	Qty 1+	Qty 10+	Qty 25+
AT89C2051-24SI	SOIC20	8 bit micro + 2kB flash memory	ZZ-8705	$19.80	$17.70	$13.70
AT90S2313-10SI	SOIC20	8 bit micro + 2kB prog flash memory	ZZ-8715	$29.60	$26.45	$20.70
AT90S8515-16AI	TQFP44	8 bit micro + 8kB prog flash memory	ZZ-8725	$48.00	$42.95	$33.45

ATmega AVR RISC Microcontrollers

Atmel's AVR microcontrollers utilise their famous RISC core operating at market leading speeds to make some of the best microcontroller products available. Architecture engineered for working with compiled C language programs, there is no longer a need for assembly language or a need for inefficient and unwieldy BASIC, so you can develop your project quicker without having to learn a new language.

- 16MHz



Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
ATmega8-16PU	28	8 bit micro + 8kB flash memory	ZZ-8753	$7.95	$6.95	$5.50
ATmega128-16AI	TQFP64	8 bit micro + 128kB flash memory	ZZ-8770	$29.95	$26.90	$20.70
ATmega162-16PU	40	8 bit micro + 16kB flash memory	ZZ-8772	$22.90	$20.35	$15.95

RELATED PRODUCT...

For full range of Arduino parts see pages 89 to 96.

ATmega328P MCU with Arduino Uno Bootloader

NEW 2013

An ATMEL AVR ATmega328P microcontroller for you to build your very own customised Arduino compatible projects. For your convenience it comes with the Arduino Uno bootloader pre-installed and features a special label on top which details the pinouts.

Features:

- 23 programmable I/O lines
- 6-channel ADC
- 0 - 4MHz @ 1.8 - 5.5V, 0 - 10MHz @ 2.7 - 5.5V, 0 - 20MHz @ 4.5 - 5.5V
- 28-pin DIP format for easy use in breadboards or Arduino compatible boards

Cat.	Qty 1+	Qty 10+	Qty 25+
ZZ-8726	$9.95	$8.75	$6.75

AUTOMATIC ACCOUNT

For Schools, Government Departments, Public Companies, Radio & TV Stations

TECH TIP

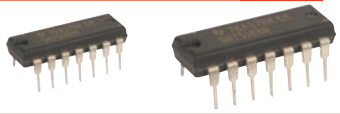
FREE INFORMATION SERVICE

For several years now we have been writing 'primers' - short technical articles on a topic - to help people use our products more easily. Usually they are between 2 and 6 pages long, contain text and relevant illustrations. They are freely available on our website. You can, for example, learn how to make an FM 'trap' to improve TV and FM radio reception, learn how to connect a LED across 240V safely, have the latest video interface formats explained, etc. We hold copyright on these and you must seek out permission in writing to use them for any other purpose than your personal consumption.

INTEGRATED CIRCUITS

Special Function

- Major brands only



Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
1488	14	Quad line driver RS-232	ZZ-8148	$3.20	$2.83	$2.15
1489	14	Quad line receiver RS-232	ZZ-8149	$3.20	$2.83	$2.15
27C64	28	64k (8k x 8) EPROM	ZZ-8465	$11.95	$10.70	$8.25
27C256	28	256k (32k x 8) EPROM	ZZ-8471	$11.95	$10.70	$8.25
24LC16B	8	16k I²C serial EEPROM	ZZ-8480	$2.95	$2.60	$1.95
24LC256	8	256k I²C serial EEPROM	ZZ-8485	$4.95	$4.45	$3.45
ADC0804	20	8 bit A to D converter	ZK-8862	$11.95	$10.70	$8.25
DAC0800LCN	16	8 bit D to A converter	ZK-8864	$5.95	$5.25	$4.15
DAC0802LCN	16	8 bit D to A converter	ZK-8866	$12.95	$11.35	$8.95
IR2011PBF	8	Half bridge driver 1A 200V	ZK-8878	$5.35	$4.70	$3.75
L6202	18	Full bridge driver 1.5A 48V	ZK-8874	$11.95	$10.70	$9.50
MAX 232	16	Dual RS232 driver/receiver	ZK-8824	$4.95	$4.45	$3.45
MAX497CPE	16	Quad video buffer/amp	ZK-8826	$29.95	$26.90	$20.70
MC34063	8	DC to DC converter	ZK-8837	$5.75	$4.95	$3.95
MC145436	14	DTMF Decoder	ZK-8870	$7.95	$6.95	$5.50
MK484	3	AM Radio Receiver (TO-92)	ZK-8828	$1.95	$1.75	$1.35
UA494/TL494	16	Switchmode power controller	ZK-8850	$5.20	$4.60	$3.60
ULN2003N	16	7 Darlington array (5V TTL, CMOS)	ZK-8855	$3.75	$3.30	$2.60
XR2206	16	Monolithic function generator	ZK-8830	$15.95	$14.35	$10.95
XR2211	14	FSK demodulator/tone decoder	ZK-8831	$7.75	$6.90	$5.40

8Bit 257 Step Digital Pot - MCP4151-103E/P

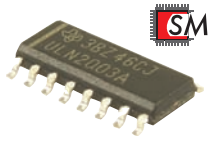
8Bit (257 step) digital pots are useful in application that require precision control. They can be used for example in the feedback network of an op amp to provide precise variable gain control, or filters to allow accurate adjustment of the filter properties.

Type	Pins	Description	Cat	Qty 1+	Qty 10+	Qty 25+
MCP4151-103E/P	8	Digital pot 257 step 10kOhm	ZK-8879	$2.75	$2.38	$1.90

SMD 7 Darlington Array

High voltage, high current Darlington arrays each contain seven open collector Darlington pairs with common emitters. Each channel rated at 500mA and can withstand peak currents of 600mA. Suppression diodes are included for inductive load driving and the inputs are pinned opposite the outputs to simplify board layout.

- Sold as a pack of 10

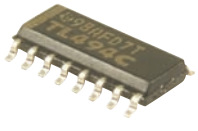


Type	Case	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
ULN2003D	SO16	5V TTL, CMOS	ZK-8858	$27.95	$24.95	$19.35

SMD Switchmode PWM Controller

The TL494 is used for the control circuit of the PWM switching regulator. The TL494 consists of a 5V reference voltage circuit, two error amplifiers, flip flop, an output control circuit, a PWM comparator, a dead time comparator and an oscillator. This device can be operated in the switching frequency of 1kHz to 300kHz.

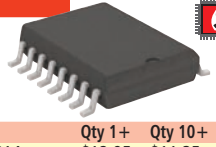
- Internal regulator provides a stable 5V reference supply trimmed to 5%
- Uncommitted output TR for 200mA sink or source current
- Output control for push-pull or single ended operation
- Variable duty cycle by dead time control (pin 4) complete PWM control circuit
- On-chip oscillator with master or slave operation
- Internal circuit prohibits double pulse at either output
- Sold as a pack of 10



Type	Case	Description	Cat.	Qty 1+	Qty 10+	Qty 25+
TL494CDR2	S016	Switchmode PWM controller	ZK-8860	$34.95	$31.45	$24.35

SMD SPECIAL FUNCTION ICs

- Sold as a pack of 10

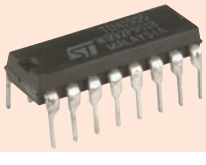


Type	Case	Desciption	Cat.	Qty 1+	Qty 10+	Qty 25+
MC/DS1488M/D1	SOIC14	Quad line driver RS-232	ZK-8814	$12.95	$11.35	$8.95
MC/DS1489M/D1	SOIC14	Quad line receiver RS-232	ZK-8876	$12.95	$11.35	$8.95
MAX232CWE	SOIC16	Dual RS-232 driver/receiver	ZK-8822	$49.95	$44.90	$34.90

TECH TIP

SEMICONDUCTOR DATA

Data on over 350 devices and their derivatives can be found on the Jaycar website. Simply go to www.jaycar.com.au/semiconductor and search for the part you need data for.



SPECIALTY ICs

HK-828 40-60 Second Voice Recorder IC

Single chip, high quality voice recording & playback solution with 40 to 60 second programmable in DIP-28L package.

- No external ICs required; minimum external components.
- Non-volatile Flash memory technology - no batteries required.
- User-selectable messaging options
- User friendly, easy-to-use operation
- Low power consumption
- Chip enable pin for simple message expansion

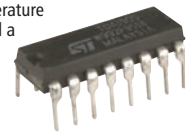
See website for data sheets.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZZ-8200	$19.95	$17.70	$13.70

TDA1905 5W Amplifier IC with Mute

Monolithic integrated circuit in POWERDIP package, intended for use as low frequency power amplifier in a wide range of applications in radio and TV sets:

- Muting facility
- High supply voltage rejection
- Voltage range 4V to 30V
- Protection against chip over temperature
- Power dissipation of up to 6W and a thermal resistance of 15°C/W (junction to pins)
- Very low noise
- Low switch-on noise
- Full data on website



	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZL-3600	$2.95	$2.60	$1.95

SST49LF020 LPC Flash Memory

The SST49LF020 flash memory device is designed to interface with the LPC bus for PC, game console and Internet Appliance applications. It provides protection for the storage and update of code and data in addition to adding system design flexibility through five General Purpose Inputs (GPI). The SST49LF020 is in compliance with the Intel Low Pin Count (LPC) Interface Specification 1.0. Two interface modes are supported: LPC Mode for In-System programming and Parallel Programming (PP) Mode for fast factory programming.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZZ-8900	$14.95	$13.35	$10.35

DC-DC REGULATED CONVERTERS

Low noise voltage converter for communication applications.

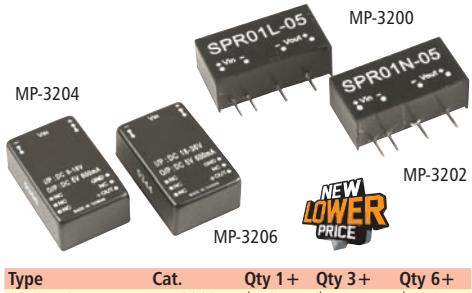
Specifications	
I/O Isolation voltage	1000VDC Min
I/O Isolation resistance	100MΩ Min
Isolation capacitance	80pF (max)
Operating temperature	-25°C to +85°C

1 WATT MODULE

Cat	Type	Input	Output	Current
MP-3200	SPR01L-05	5VDC +10%	5VDC	200mA
MP-3202	SPR01N-05	24VDC +10%	5VDC	200mA

3 WATT MODULE

Cat	Type	Input	Output	Current
MP-3204	SCW03A-05	9-18VDC	5VDC	600mA
MP-3206	SCW03B-0	18-36VDC	5VDC	600mA

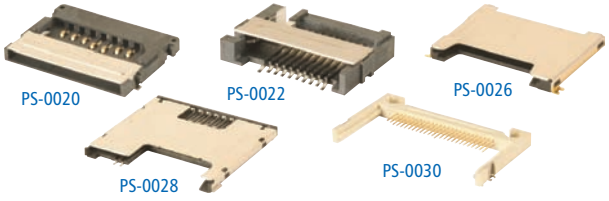


Type	Cat.	Qty 1+	Qty 3+	Qty 6+
SPR01L-05	MP-3200	$6.95	$6.25	$5.50
SPR01N-05	MP-3202	$6.95	$6.25	$5.50
SCW03A-05	MP-3204	$12.95		
SCW03B-05	MP-3206	$12.95		

IC Sockets

MEMORY CARD SOCKETS - SURFACE MOUNTS

These sockets are ideal for development applications or repairing card readers and media devices.
• See our website for full data sheets and specs.



	Cat.	Qty 1+	Qty 10+	Qty 50+
Multimedia Card	PS-0020	$4.95	$4.45	$3.90
Memory Stick	PS-0022	$4.95	$4.45	$3.90
XD Card	PS-0026	$6.95	$6.25	$5.50
Smart Media	PS-0028	$6.95	$6.25	$5.50
Compact Flash	PS-0030	$7.95	$6.95	$6.25

IC/Smart Card Acceptor

These modules are for use in circuit designs incorporating the use of Smart Cards/ IC Cards. They accept either card and feature an internal SPST switch, which is triggered by card insertion. Data sheets and specifications on the website.

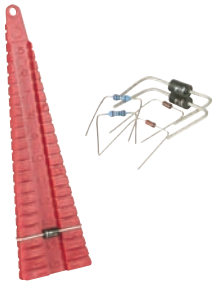
	Cat.	Qty 1+	Qty 10+	Qty 50+
Through Hole Mount	PS-0010	$11.95	$10.70	$9.50
Surface Mount	PS-0012	$11.95	$10.70	$9.50

COMPONENT TOOLS, HOLDERS & EXTRACTORS

Component Lead Forming Tool

Get the hole spacing for your resistors and diodes perfect every time. This handy forming tool provides uniform hole spacing from 10 to 38mm. Suitable for production assembly, education and training. The tool is double sided with one side for use with DO47 outline diodes (eg 1N914) and 1W zener diodes; the other side being suitable for 1/4W resistors, DO41 outline diodes (eg 1N4004). An incredibly handy tool!

• Dimensions: 138(L)mm
• Made in USA from engineering plastic.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1810	$7.95	$6.95	$6.25

Soldering Heatsink & Component Holder

This quality small tool is ideal as a heatsink when soldering to remove some of the heat from the semiconductor/component while soldering. It can also be used to hold small parts while soldering to avoid burnt fingers.

• Supplied with insulated handles, and length is 65mm.

Cat.	Qty 1+	Qty 3+	Qty 6+
TD-2122	$6.95	$6.25	$5.50

IC Extractor

Deceptively simple looking device.

• One piece metal construction
• 8 - 40 pins

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1818	$2.95	$2.60	$2.30

PLCC Extractor

There's really only one way to remove a PLCC safely - and this is it. Basically a spring assisted clip carrier extractor, specifically designed for the safe and hassle free removal of PLCCs from sockets.

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1816	$11.95	$10.70	$9.50

IC SOCKETS

• All 0.1" (2.54mm) pitch

Low Cost

Production PCB Mount

• Solder tail
• All tin plated phosphor bronze or beryllium copper

Pins	Width	Cat.	Qty 1+	Qty 10+	Qty 25+
6	0.3"	PI-6499	$0.30	$0.25	$0.24
8	0.3"	PI-6500	$0.32	$0.27	$0.25
14	0.3"	PI-6501	$0.35	$0.30	$0.27
16	0.3"	PI-6502	$0.40	$0.35	$0.30
18	0.3"	PI-6503	$0.45	$0.40	$0.35
20	0.3"	PI-6504	$0.50	$0.45	$0.40
22	0.3"	PI-6505	$0.55	$0.47	$0.42
24	0.6"	PI-6506	$0.60	$0.52	$0.47
28	0.6"	PI-6507	$0.75	$0.65	$0.60
40	0.6"	PI-6508	$0.90	$0.80	$0.60

Gold Insert Machined Pin

• Anti-wicking very high quality.
• Ideal for professional / portable or field service equipment.

Pins	Width	Cat.	Qty 1+	Qty 10+	Qty 25+
6	0.3"	PI-6450	$0.95	$0.80	$0.55
8	0.3"	PI-6452	$1.15	$1.01	$0.80
14	0.3"	PI-6454	$1.30	$1.15	$0.90
16	0.3"	PI-6456	$1.50	$1.35	$1.05
18	0.3"	PI-6458	$2.15	$1.90	$1.50
20	0.3"	PI-6460	$2.25	$1.95	$1.55
22	0.3"	PI-6462	$2.35	$2.09	$1.60
28	0.6"	PI-6466	$2.95	$2.60	$1.95
40	0.6"	PI-6468	$3.95	$3.45	$2.75

Wire Wrap Machined

• Gold insert - machined pins

Pins	Width	Cat.	Qty 1+	Qty 10+	Qty 25+
14	0.3"	PI-6492	$3.95	$3.45	$3.15
16	0.3"	PI-6493	$4.45	$3.95	$3.45
20	0.3"	PI-6495	$4.95	$4.45	$3.90

IC Socket Strips

WIRE WRAP PINS
• Gold insert
• 0.1" pitch
• Machined pin

Pins	Cat	Qty 1+	Qty 10+	Qty 25+
20 Way	PI-6473	$4.50	$3.95	$3.15
32 Way	PI-6472	$6.50	$5.75	$4.45

STANDARD PINS
• Gold insert
• 0.1" pitch
• Machined pin

Pins	Cat.	Qty 1+	Qty 10+	Qty 25+
32 Way	PI-6470	$3.25	$2.90	$2.15

ZIF Sockets

Zero Insertion Force. Drop the device in and close the lever to contact pins. Ideal for production testing.

Pins	Cat	Qty 1+	Qty 10+	Qty 25+
18	PI-6480	$7.50	$6.75	$5.25
28	PI-6483	$10.95	$9.75	$7.50
40	PI-6484	$11.95	$10.70	$8.25

PLCC Sockets

THROUGH HOLE
• Gold plated phosphor bronze contacts.
• Height: 7.7mm

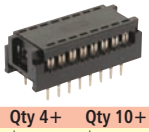
Size	Size L x W mm	Cat.	Qty 1+	Qty 10+	Qty 25+
28 pin	18 x18	PI-6600	$2.15	$1.90	$1.50
32 pin	20.6 x 20.6	PI-6602	$2.35	$2.09	$1.60
44 pin	23.5 x 23.5	PI-6604	$2.75	$2.45	$1.90
52 pin	26 x 26	PI-6606	$2.95	$2.60	$1.95

SURFACE MOUNT
• Silver plated phosphor bronze contacts.
• Height: 4.5mm

Size	Size L x W mm	Cat.	Qty 1+	Qty 10+	Qty 25+
28 pin	18 x 18	PI-6620	$2.35	$2.09	$1.60
44 pin	23.5 x 23.5	PI-6624	$2.75	$2.45	$1.90
68 pin	31 x 31	PI-6628	$4.95	$4.45	$3.90
84 pin	36 x 36	PI-6630	$5.95	$5.25	$4.75

Insulation Displacement Type Header Plug

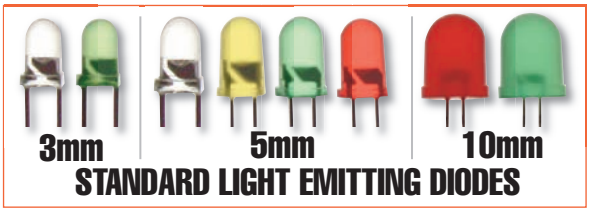
• Includes cap
• 16 Way.
• Use 16 way ribbon cable



Cat.	Qty 1+	Qty 4+	Qty 10+
PI-6550	$1.95	$1.75	$1.55

STANDARD LEDS

Viewing Angle	Is the complete angle where the luminous intensity is half the on-axis intensity.
Wavelength	Dominant Wavelength of the light emitted in nm (nanometers). This determines the colour of the LED.
IF Typical	Continuous forward current in mA to obtain typical optical characteristics.
VF Typical	Continuous forward voltage in Volts to obtain typical optical characteristics.
IF Max	Maximum continuous forward current in mA at 25°C.
VDD Typical	Operating voltage to obtain typical optical characteristics.
VDD Max	Absolute maximum supply voltage at 25°C.
IV Typical	Light emitted from the LED is quantified by a single point, ie the on-axis Luminous Intensity value in mcd (millicandela) at IF Typical.



- Luminous intensity (IV) does not represent total light output from an LED. Both the luminous intensity and the spatial radiation pattern (viewing angle) must be taken into account.
- If two LEDs have the same luminous intensity value, the lamp with the larger viewing angle will have the higher total light output.
- Maximum luminous intensity can be achieved by operating the LED in pulsed mode, or maximum continuous forward current.

3mm LEDs

Optical and Electronic Characteristics								Max Continuous	Preferred Value Series Resistor (ohms) for						
Size	Viewing Angle	Colour	Lens	Wavelength, Chromatic	IF Typical	VF Typical	IV Typical	IF Max							
(mm)	(Degrees)			(nm), Co-ordinates	(mA)	(V)	(mcd)	(mA)	5VDC	9VDC	12VDC	Cat.	Qty 1+	Qty 10+	Qty 25+
3	45	Red	Diffused	650	15	2.3	40	15	180	470	680	ZD-0100	$0.20	$0.18	$0.14
3	15	Red	Waterclear	660	20	1.8	1500	30	160	360	510	ZD-0102	$0.60	$0.52	$0.40
3	20	Red	Waterclear	625	20	2.0	2100	50	150	360	510	ZD-0104	$1.25	$1.10	$0.85
3	15	Red	Waterclear	625	20	2.1	7000	30	150	360	510	ZD-0106	$3.75	$3.30	$2.60
3	45	Orange	Diffused	625	20	1.9	35	30	160	360	510	ZD-0119	$0.25	$0.22	$0.17
3	50	Yellow	Diffused	585	20	2.1	10	20	150	360	510	ZD-0110	$0.20	$0.18	$0.14
3	20	Yellow	Waterclear	588	20	2.0	3000	50	150	360	510	ZD-0112	$1.50	$1.35	$1.05
3	15	Yellow	Waterclear	588	20	2.2	6500	50	150	360	510	ZD-0114	$3.50	$3.15	$2.45
3	50	Green	Diffused	573	20	2.3	40	20	130	330	470	ZD-0120	$0.20	$0.18	$0.14
3	20	Green	Waterclear	568	20	2.1	500	30	150	360	510	ZD-0122	$1.25	$1.10	$0.85
3	20	Green	Waterclear	520	20	3.2	6000	20	91	300	470	ZD-0124	$5.95	$5.25	$4.15
3	15	Aqua	Waterclear	505	20	3.5	4000	30	75	270	430	ZD-0126	$4.95	$4.45	$3.45
3	15	Blue	Waterclear	465	20	3.3	1500	20	82	300	430	ZD-0130	$2.45	$2.15	$1.70
3	15	Blue	Waterclear	470	20	3.2	3700	30	91	300	430	ZD-0132	$5.45	$4.90	$3.75
3	15	White	Waterclear	0.31/0.32	20	3.2	1000	20	91	300	430	ZD-0140	$2.45	$2.15	$1.70
3	20	White	Waterclear	0.31/0.32	20	3.2	5000	30	91	300	430	ZD-0142	$3.45	$3.05	$2.30
3	15	White	Waterclear	0.31/0.32*	25	3.4	12000	25	62	220	360	ZD-0298	$4.45	$3.95	$2.95

*CREE®

5mm LEDs

5	50	Red	Diffused	700	20	2.3	8	30	130	330	470	ZD-0150	$0.25	$0.22	$0.17
5	15	Red	Waterclear	660	20	1.7	500	30	160	360	510	ZD-0152	$0.65	$0.57	$0.45
5	15	Red	Waterclear	625	20	2.0	4000	50	150	360	510	ZD-0154	$1.25	$1.10	$0.85
5	15	Red	Waterclear	625	20	2.1	10000	50	150	360	510	ZD-0156	$2.95	$2.60	$1.95
5	15	Red	Waterclear	624*	30	2.1	23500	30	100	240	330	ZD-0293	$4.95	$4.45	$3.45
5	8	Red	Waterclear	616	50	2.1	35000	50	62	150	200	ZD-1790	$3.95	$3.45	$2.75
5	40	Orange	Diffused	635	20	2.0	10	30	150	360	510	ZD-0169	$0.25	$0.22	$0.17
5	50	Yellow	Diffused	585	20	2.1	8	30	150	360	510	ZD-0160	$0.25	$0.22	$0.17
5	15	Yellow	Waterclear	590	20	2.2	2500	20	150	360	510	ZD-0162	$1.25	$1.10	$0.85
5	15	Yellow	Waterclear	588	20	2.0	5200	50	150	360	510	ZD-0164	$1.50	$1.35	$1.05
5	15	Yellow	Waterclear	588	20	2.3	10500	50	130	330	470	ZD-0166	$3.75	$3.30	$2.60
5	15	Yellow	Waterclear	591*	30	2.1	23500	30	100	230	330	ZD-0295	$4.95	$4.45	$3.45
5	50	Green	Diffused	570	20	2.3	10	30	130	330	470	ZD-0170	$0.25	$0.22	$0.17
5	30	Green	Waterclear	525	20	3.5	7500	30	75	270	430	ZD-0172	$1.95	$1.75	$1.35
5	15	Green	Waterclear	515	20	3.5	8500	30	75	270	430	ZD-0174	$3.75	$3.30	$2.60
5	20	Green	Waterclear	525	20	3.2	12000	20	91	300	430	ZD-0176	$4.95	$4.45	$3.45
5	15	Green	Waterclear	527*	30	3.2	64600	30	62	200	300	ZD-0292	$5.95	$5.25	$4.15
5	15	Aqua	Waterclear	505	20	3.5	8500	30	75	270	430	ZD-0178	$3.95	$3.45	$2.75
5	40	Blue	Diffused	470	20	3.3	350	30	82	300	430	ZD-0185	$1.95	$1.75	$1.35
5	15	Blue	Waterclear	468	20	3.2	2500	30	91	300	430	ZD-0180	$2.45	$2.15	$1.70
5	15	Blue	Waterclear	470	20	3.2	4850	30	91	300	430	ZD-0182	$3.95	$3.45	$2.75
5	15	Blue	Waterclear	470*	30	3.2	23500	30	62	200	300	ZD-0291	$4.95	$4.45	$3.45
5	30	White	Waterclear	0.31/0.31	20	3.2	4000	30	91	300	430	ZD-0190	$2.45	$2.15	$1.70
5	20	White	Waterclear	0.31/0.32	20	3.2	10000	30	91	300	430	ZD-0192	$3.45	$3.05	$2.30
5	15	White	Waterclear	0.31/0.32	20	3.3	20000	30	82	300	430	ZD-0195	$4.95	$4.45	$3.45
5	15	White	Waterclear	0.29/0.29*	30	3.2	45000	30	62	200	300	ZD-0290	$5.95	$5.25	$4.15
5	30	UV	Waterclear	405	20	3.3	60	20	91	300	430	ZD-0260	$4.95	$4.45	$3.45

*CREE®

10mm LEDs

10	16	Red	Diffused	635	20	2.0	100	20	150	360	510	ZD-0200	$0.55	$0.47	$0.37
10	30	Red	Waterclear	625	20	2.0	2000	50	150	360	510	ZD-0201	$1.25	$1.10	$0.85
10	30	Red	Waterclear	625	20	2.0	4500	50	150	360	510	ZD-0202	$2.45	$2.15	$1.70
10	20	Orange	Waterclear	610	20	2.4	9000	50	130	330	470	ZD-0225	$2.95	$2.60	$1.95
10	35	Yellow	Diffused	585	20	2.0	63	30	150	360	510	ZD-0210	$0.55	$0.47	$0.37
10	30	Yellow	Waterclear	588	20	2.0	4000	50	150	350	510	ZD-0211	$1.25	$1.10	$0.85
10	30	Yellow	Waterclear	588	20	2.2	4500	50	150	360	510	ZD-0212	$2.45	$2.15	$1.70
10	50	Green	Diffused	570	20	2.2	100	20	150	360	510	ZD-0205	$0.55	$0.47	$0.37
10	30	Green	Waterclear	525	20	3.1	13000	20	100	300	430	ZD-0206	$3.75	$3.30	$2.60
10	30	Blue	Waterclear	470	20	3.5	1200	30	75	270	430	ZD-0215	$3.45	$3.05	$2.30
10	30	White	Waterclear	0.25/0.26	20	3.2	5000	30	91	300	430	ZD-0220	$3.45	$3.05	$2.30

5 x 2mm Rectangular LEDs

5 x 2	155	Red	Diffused	643	20	2.3	5	20	130	330	470	ZD-0230	$0.40	$0.35	$0.27
5 x 2	155	Yellow	Diffused	590	20	1.9	10	20	160	360	510	ZD-0234	$0.40	$0.35	$0.27
5 x 2	155	Green	Diffused	573	20	2.3	15	20	130	330	470	ZD-0232	$0.40	$0.35	$0.27

3mm Superflux

3 Superflux	90	White	Waterclear	0.29/0.29	Cree®	35	3.6	3000	35	43	160	240	ZD-0020	$5.95	$5.25	$4.15

LEDs & Mounting Aids

BI LEDS

	Size (mm)	Viewing Angle (Degrees)	Colour	Lens	Optical and Electronic Characteristics: Wavelength (nm)	IF Typical (mA)	VF Typical (V)	IV Typical (mcd)	Max Continuous IF Max (mA)	Preferred Values Series Resistor (ohms) for 5VDC	9VDC	12VDC	Cat.	Qty 1+	Qty 10+	Qty 25+
Bi	3	65	Red	Diffused	605	20	2.1	1.3	30	150	360	510	ZD-0248	$0.95	$0.85	$0.65
		65	Green	Diffused	570	20	2.3	1.5	30							
Bi	5	90	Red	Diffused	625	20	2.1	7.6	30	150	360	510	ZD-0250	$0.95	$0.85	$0.65
		90	Green	Diffused	567	20	2.2	10	30							
Bi	10	75	Red	Diffused	625	20	2.0	10	30	150	360	510	ZD-0255	$1.25	$1.10	$0.85
		75	Green	Diffused	570	20	2.1	10	30							
Bi	3	75	Orange	Diffused	625	20	2.0	4.5	30	150	360	510	ZD-0249	$0.95	$0.85	$0.65
		75	Green	Diffused	570	20	2.1	6	30							
Bi	5	90	Orange	Diffused	625	20	2.1	70	30	150	360	510	ZD-0252	$1.00	$0.90	$0.70
		90	Green	Diffused	568	20	2.2	80	30							
Bi	10	75	Red	Diffused	625	20	2.0	10	30	150	360	510	ZD-0256	$1.50	$1.35	$1.05
		75	Green	Diffused	570	20	2.1	10	30							

TRI LEDS

	Size (mm)	Viewing Angle (Degrees)	Colour	Lens	Optical and Electronic Characteristics: Wavelength (nm)	IF Typical (mA)	VF Typical (V)	IV Typical (mcd)	Max Continuous IF Max (mA)	Preferred Values Series Resistor (ohms) for 5VDC	9VDC	12VDC	Cat.	Qty 1+	Qty 10+	Qty 25+
		45	Red	Diffused	625	20	2.0	600	30	150	360	510				
Tri	5	45	Green	Diffused	520	20	3.5	1000	30	75	270	430	ZD-0270	$6.95	$6.25	$4.75
		45	Blue	Diffused	470	20	3.5	200	30	75	270	430				
		60	Red	Waterclear	643	20	1.8	200	20	160	360	510				
Tri	5 Superflux	60	Green	Waterclear	528	20	3.2	900	20	91	300	470	ZD-0010	$4.95	$4.45	$3.45
		60	Blue	Waterclear	468	20	3.2	150	20	91	300	470				
		60	Red	Waterclear	630	20	1.8	350	20	160	360	510				
Tri	5 Superflux	60	Green	Waterclear	528	20	3.2	600	20	91	300	470	ZD-0012	$4.95	$4.45	$3.45
		60	Blue	Waterclear	468	20	3.2	900	20	91	300	470				

FLASHING LEDS

	Size (mm)	Viewing Angle (Degrees)	Colour	Lens	Optical and Electronic Characteristics: Wavelength (nm)	IF Typical (mA)	VDD Typical (V)	IV Typical (mcd)	Absolute Maximum VDD Max (V)	Cat.	Qty 1+	Qty 10+	Qty 25+
Flashing	5	50	Red	Diffused	630	20	5.0	50	10	ZD-0240	$1.25	$1.10	$0.85
Flashing	5	30	Red	Diffused	643	20	5.0	60	10	ZD-1785	$1.95	$1.75	$1.35
Flashing	5	45	Yellow	Diffused	597	20	5.0	35	10	ZD-0244	$1.25	$1.10	$0.85
Flashing	5	45	Green	Diffused	568	20	5.0	35	10	ZD-0242	$1.25	$1.10	$0.85
Flashing	5	40	Blue	Diffused	470	20	5.0	900	10	ZD-0245	$1.95	$1.75	$1.35
Flashing	10	50	Red	Diffused	660	20	5.0	50	10	ZD-1965	$2.45	$2.15	$1.70

TRI COLOUR SEQUENCING LEDS

	Size (mm)	Viewing Angle (Degrees)	Colour	Lens	Optical and Electronic Characteristics: Wavelength (nm)	IF Typical (mA)	VDD Typical (V)	IV Typical (mcd)	Absolute Maximum VDD Max (V)	Cat.	Qty 1+	Qty 10+	Qty 25+
Tri		30	Red	Waterclear	625	20	4.5	1000	4.5				
Colour	5	30	Green	Waterclear	520	20	4.5	1800	4.5	ZD-0246	$6.95	$6.25	$4.75
Sequencing		30	Blue	Waterclear	470	20	4.5	550	4.5				
Tri		30	Red	Waterclear	625	20	4.5	500	4.5				
Colour	5	30	Green	Waterclear	520	20	4.5	5000	4.5	ZD-0247	$6.95	$6.25	$4.75
Sequencing		30	Blue	Waterclear	470	20	4.5	2000	4.5				

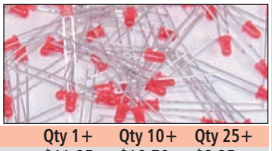
LED PACKS

3mm Red

- 5-20mcd @ 20mA typical

Packet of 100.

NEW LOWER PRICE



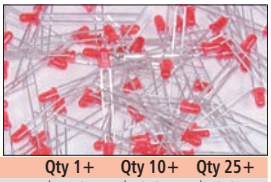
	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 100	ZD-1692	$11.95	$10.70	$8.25

5mm Red

- 5-20mcd @ 20mA typical

Packet of 100

NEW LOWER PRICE



	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 100	ZD-1690	$14.95	$13.35	$10.35

Assorted LED Pack

Consisting of 20 x 5mm red, 20 x 5mm mixed (green, yellow, orange), 40 x 3mm red, 20 x 3mm mixed (green, yellow, orange). BONUS 10 x 5mm mounting hardware AT NO CHARGE.

Packet of 100.

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 100	ZD-1694	$24.95	$22.35	$17.35

LED ACCESSORIES

Light Transporter 100mm Pack of 3

Ideal for when you encounter a limitation of space, angle and distance on your project. These fibre optic light transporters are simply clipped over the LED and mounted to the panel. With high light conductivity the intensity will not diminish. Much easier to install than LED clips!

- 100mm fibre optic lead
- Hole cut-out size: 3.5mm

	Pack	Cat.	Qty 1+	Qty 10+	Qty 25+
Suit SMD LEDs	3	HP-1192	$9.95	$8.75	$7.75
Suit 3mm LEDs	3	HP-1193	$9.95	$8.75	$7.75

LED Clips

3MM LED CLIPS

- Black.
- Requires a 4mm panel hole.
- Simply push clip in panel & insert LED

5MM LED CLIPS

- Black,
- Requires a 6.35mm panel hole.

		Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 20	3mm	HP-1100	$2.95	$2.60	$2.30
Pkt 20	5mm	HP-1102	$2.95	$2.60	$2.30
Pkt 100	5mm	HP-1103	$12.50	$10.95	$9.95

10MM LED BEZELS

- Black, requires a 14mm panel hole and simply snaps in. LED not included.

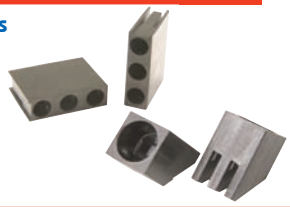
RELATED PRODUCT...
Also see chrome LED Bezels on next page.

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 5	HP-1110	$6.95	$6.25	$5.50

This colour pricebar denotes a Clearance item - check for specials.

LED ACCESSORIES (CONTINUED)

LED Mounts



3MM
- 3 way
- Pkt 20

Cat. HP-1118

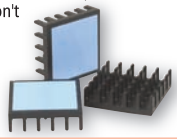
5MM
- Single
- 45° angle

Cat. HP-1114

	Size	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 20	3mm	HP-1118	$5.95	$5.25	$4.75
Pkt 20	5mm	HP-1114	$3.25	$2.90	$2.60
Pkt 100	5mm	HP-1115	$13.95	$12.35	$10.95

Heatsink Pin Grid Array with Adhesive Thermal Transfer Tape

This heatsink makes a perfect partner to Star LED modules. It doesn't get quicker or easier than this! Just peel the backing from the pre-mounted thermal transfer tape, press the Star LED (or whatever device) to the heatsink and it's ready to go! Don't be fooled by the compact size. The "pin grid array" design provides excellent thermal resistance and heat dissipation.



- Thermal Resistance: 5.9°C/W

Size (mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
21x21x6.2	HH-8580	$3.25	$2.90	$2.60

LED BEZELS - HIGH VOLTAGE

Chrome Bezels - 240V

Very smart units.
- Length 32mm
- 70mm leads.
- Panel hole 7mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2632	$2.75	$2.45	$2.15
Green	SL-2633	$2.75	$2.45	$2.15

Bezel - 240V

Red, spade lug connections.
- Small round flat end
- Total length 45mm
- 10mm diameter
- Cut out hole 9mm.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2630	$1.65	$1.45	$1.30

NEONS / GLOBE HOLDER

90V NE2 Neon

Would you believe it? After about 100 years of orangey-red neons we now can get blue and green ones! You'll buy one out of curiousity!

- Strike voltage: 82V
- Needs 270k resistor in series for 240V operation

	Cat.	Qty 1+	Qty 10+	Qty 25+
Orange/Red	SL-2690	$0.90	$0.80	$0.70
Blue	SL-2695	$0.90	$0.80	$0.70
Green	SL-2696	$0.90	$0.80	$0.70

Batten Globe Holder

A batten holder that is easy to fit. Unit comes apart for easy mounting. The cable screw connectors are easy to get to and are at a right angle. Supplied with plaster board mounting plugs also. A much improved batton holder.

- Accepts standard BC globes.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4070	$7.95	$6.95	$6.25

Narrow Angle Reflector for CREE® MC-E High Power LED

Focuses the tremendous light output from the CREE® MC-E LED module into a narrow 10º beam. Fits neatly over the MC-E module and extends 16mm in front of the emitter. LED module & lens combined is a mere 20mm in height.

- Dimensions: 34(Dia) x 16(H)mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	HP-1280	$9.95	$8.75	$6.75

BEZELS - LOW VOLTAGE

3mm LED Bezels - 2V

Chrome housing.
- 2V, 15 - 30mA
- Panel hole 5mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2615	$2.75	$2.45	$1.90
Green	SL-2616	$2.75	$2.45	$1.90
Blue	SL-2617	$3.75	$3.30	$2.60

5mm LED Bezels - 2V - 12V

Chrome housing.
- 2V, 15 - 30mA
- Panel hole 8mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2610	$1.95	$1.75	$1.35
Green	SL-2612	$1.95	$1.75	$1.35
Blue	SL-2613	$4.95	$4.45	$3.45

Mini Chrome Bezels - 12V

These are very classy and have either a bright 3mm red or green LED in the chrome casing. The casing measures only 10mm long & hole cutout of only 5mm.

- Supplied with flying leads about 100mm long
- Includes dropping resistor.

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2644	$3.65	$3.15	$2.90
Green	SL-2645	$3.65	$3.15	$2.90

Chrome Bezel LED - 24V

Classy chrome casing with either a red or green 3mm LED. Supplied with flying leads with resistor, 5mm hole required.

Two types available:

	Cat.	Qty 1+	Qty 10+	Qty 25+
Green	SL-2646	$3.65	$3.15	$2.90
Red	SL-2647	$3.65	$3.15	$2.90

Low Voltage Bezels - 6 & 12V

Accepts Lilliput globes.
- Panel hole 10mm.
- Length 29mm.
- Requires Lilliput globes SL-2650 6V SL-2652 12V

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2620	$1.75	$1.55	$1.40
Green	SL-2622	$1.75	$1.55	$1.40

IP67 Chrome LED Bezels - 12V

IP67 (waterproof) rated LED lamp bezel in a chrome housing. Perfect for applications where protection from dust and water ingress are required.

- 12VDC
- Panel hole: 8mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
Red	SL-2625	$7.95	$6.95	$5.50
Green	SL-2627	$7.95	$6.95	$5.50

Bezel Small - 12V

Red, sealed, 12 volt bright bezel for any application.

- Small size.
- Panel hole 7mm.
- Length 34mm.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2640	$1.95	$1.75	$1.55

Bezel Medium - 12V

Red, sealed, ideal for cars as an indicator for driving lights, etc.

- Also suitable for burglar alarms.
- Panel cut out 10mm.
- Rectangular lens 13 x 16mm.
- Length 45mm.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2642	$1.95	$1.75	$1.55

12V Bezel Large - 12V

Perfect for car alarms.
- Orange lens which measures 20 x 20mm.
- Panel hole 15mm.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2694	$2.95	$2.60	$2.30

CREE® XP-G LEDS

Narrow Angle Collimator Lens for CREE® XP-G High Power LED

The CREE® XP-G LED technology provides tremendous light from a tiny module. Harness that light and give it direction with these collimator lenses. The lenses clip directly into the holes on the LED module without any additional hardware keeping the whole package to a minimal size. LED and lens together measure a mere 9mm total height when assembled while retaining the 10mm diameter of the LED.

Lenses available in narrow or wide angle versions:

13° NARROW ANGLE Cat. HP-1282

24° WIDE ANGLE Cat. HP-1284

	Cat.	Qty 1+	Qty 10+	Qty 25+
13° Narrow Angle	HP-1282	$6.95	$6.25	$4.75
24° Wide Angle	HP-1284	$6.95	$6.25	$4.75

LENS

7° Reflector Lens for CREE® LEDs

This narrow beam lens suits our CREE® LEDs and simply clips on to provide a 7° beam. Ideal for signs, reading lamps, pathway lighting or to make your own torch.

- 18.4mm dia
- 15mm high

	Cat.	Qty 1+	Qty 10+	Qty 25+
	HP-1299	$6.95	$6.25	$5.50

Collimator Lens for CREE® LEDs

Collimator lenses are designed to increase LED efficiency by reducing light loss caused by 'beam spreading' and provide a brighter, more focused beam. Suitable for our CREE® Star LEDs.

- Dispersion Angle: 25°

	Cat.	Qty 1+	Qty 10+	Qty 25+
	HP-1297	$7.95	$6.95	$6.25

Collimator Lens for Star LED Module

A collimator is an optical device which is designed to produce a light beam in which the rays are parallel, or at least very near parallel. While we normally consider LEDs to be very focused in terms of light spread, in many applications there is still a vast quantity of "wasted" light spread. Designed to suit our Star LED modules (lambertian LED models only) and are manufactured from quality optical components. Dispersion angle: 15°

	Cat.	Qty 1+
	HP-1292	$2.95

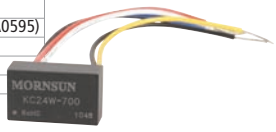
LED Switching Devices

LED POWER SUPPLIES

Dimmable Constant Current LED Driver Modules

A compact, high quality solution from Mornsun for driving high power LEDs such as our CREE® range which require a constant current power supply. Fully potted with a special coating to reduce electromagnetic interference, these drivers are quite versatile in terms of both physical fitment and electrical compatibility. Powered by 5.5-48.0VDC, they can drive up to 10 LEDs in series (input voltage must exceed LED forward voltage though), and can be dimmed either by analogue or PWM signal - meaning that even a simple potentiometer can provide dimming. Both are suitable for driving our new CREE® XP-G and MC-E models, however will not reach the full 1500mA drive current capacity of the CREE® XP-G. Two models available, 350mA and 700mA.
Full datasheet available on our website.

Specifications	
Input voltage	5.5 - 48VDC
Output current	0-350mA (AA0593), 0-700mA (AA0595)
Dimming	Analogue or PWM signal
Efficiency	96%
Dimensions	24(L) x 14(W) x 8(H)mm



Current	Cat.	Qty 1+	Qty 10+	Qty 25+
0-350mA	AA-0593	$17.95	$15.95	$12.35
0-700mA	AA-0595	$19.95	$17.70	$13.70

Power Supply for Luxeon® LED Star Modules

These tiny star LED driver modules provide a regulated current supply that is perfectly matched to the requirements of our Star LEDs. They will detect how many LEDs are loaded onto the output and automatically provide the correct voltage and regulated current, removing the necessity for any current-limiting resistors. Their small size makes them perfect for custom lighting applications. One module can drive up to 3 star LEDs in series. Input Voltage: 12-13.5VAC/DC

- Dimensions: 22mm diameter.

Wattage	Cat.	Qty 1+	Qty 10+	Qty 25+
1W	AA-0583	$19.95	$17.70	$15.70
3W	AA-0585	$19.95	$17.70	$15.70

LED Tester

NEW 2013

With this basic but essential tool it is possible to check the function, brightness, colour and polarity of most kinds of light emitting diodes (LED). The LED to be tested plugs into the front panel, at the current you wish to test it with. Two 10mA positions have been included on this multi-LED tester so that comparisons between two LEDs can be made simultaneously.

- Operating voltage: 9V
- Test currents: 1mA, 2.5mA, 5mA, 10mA, 20mA,50mA
- Dimensions: 58 x 44 x 25 mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	AA-0274	$9.95	$7.25	$5.25

Toslink Transmitter & Receiver Heads

- 3.3V or 5V single power supply
- Low power consumption
- 8 or 16 Mbps (NRZ signal) throughput
- Input is TTL compatible
- Supplied with plug
- Fits standard Toslink cable

ZL-3000

ZL-3003

WO-4360

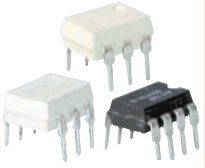
Application	
TRANSMITTER	DVD players, computer sound cards, USB digital / audio interfaces, most digital audio devices
RECEIVERS	Receivers, amplifiers, decoders, computer sound cards, USB digital audio interfaces, most digital audio devices.
OPTICAL CABLE	Optical fibre cable is ideal for communication, industrial or decorative use. Attenuation is 400dB per kilometre @ 650nm. Outside diameter is 2mm. Jacket colour is black. Length is 4 metres.

		Cat.	Qty 1+	Qty 10+	Qty 25+
Transmitter	8Mbps 3.3V	ZL-3000	$3.50	$3.15	$2.75
Optical Receiver	16Mbps 5V	ZL-3003	$5.50	$4.90	$3.75

	Cat.	Qty 1+	Qty 5+	Qty 10+
Optical Cable (per 4m length)	WO-4360	$24.50	$21.95	$19.00

OPTOCOUPLERS

NON - ZERO CROSSING



- Excellent stability - IR emitting diode has low degradation
- High isolation voltage - minimum 7500VAC peak
- Underwriters Laboratory (UL) recognised - file# E90700
- Recommended for 240VAC RMS applications
- Vending machines
- Triac driver
- Motor control
- Industrial controls
- Solid state relay
- Traffic lights

Type	Pins	Cat	Qty 1+	Qty 10+	Qty 25+
MOC3020/MOC3021	6	ZD-1920	$3.45	$3.05	$2.30

PHOTOTRANSISTOR OPTOCOUPLER

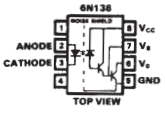
- AC line / digital logic isolator
- Digital logic / digital logic isolator
- Telephone / telegraph line receiver
- Twisted pair line receiver
- High frequency power supply feedback control
- Relay contact monitor
- Power supply monitor
- Small package size and low cost
- Excellent frequency response
- UL recognised - file# E90700

Type	Pins	Cat	Qty 1+	Qty 10+	Qty 25+
4N28/4N25	6	ZD-1928	$1.75	$1.55	$1.20

DARLINGTON OPTOCOUPLER

- Low current - 0.5mA
- Superior CTR-2000%
- Superior CMR-10 kV/μs
- Double working voltage 480VRMS
- CTR guaranteed 0-70°C
- UL recognised file# E90700
- Dual channel - HCPL2730, HCPL-2731

Applications
- Digital logic ground isolation
- Telephone ring detector
- EIA-RS232C line receiver
- High common mode noise line receiver
- μP bus location
- Current loop receiver



Type	Pins	Cat	Qty 1+	Qty 10+	Qty 25+
6N138	8	ZD-1940	$4.50	$3.95	$3.15

SMD Optocouplers

NEW LOWER PRICE

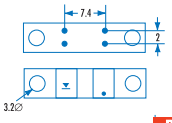
SMD

Type	Case	Pkt	Cat	Qty 1+	Qty 10+	Qty 25+
4N25S	SOIC6	10	ZD-1926	$9.95	$8.75	$6.75
4N35S	SOIC6	10	ZD-1934	$8.95	$7.95	$6.25
6N137S	SOIC8	10	ZD-1938	$19.95	$17.70	$13.70
6N138S	SOIC8	10	ZD-1943	$19.95	$17.70	$13.70
TLP113	SOIC6	EA	ZD-1941	$5.35	$4.75	$3.60

Photo Interrupter

This device enables you to turn a circuit on and off optically. It consists of a moulded plastic housing with an IR LED facing a phototransistor across a gap. Any object in the gap will interrupt the IR beam and consequently switch the phototransistor on and off. The device is very fast and ideal for counting, timing or sensing. Full specs supplied with each unit.

- PCB or chassis mounting
- Low cost
- Rugged one piece construction
- Very fast



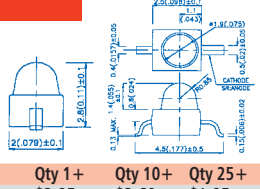
Application:
- Counter sensor
- Opto ignition
- Tape end sensor.
- Tachometer
- Edge sensor

RELATED PRODUCT...
See page 199 for our Hall Type Switch

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1901	$3.50	$3.15	$2.45

SMD TYPE LEDS - PACKS OF 10

Range of 3 colours in "Gull Wing" style package.
- Water clear lens.



Pkt	Type	Cat	Qty 1+	Qty 10+	Qty 25+
Red 10	625nm - 70mcd @20mA	ZD-2000	$2.95	$2.60	$1.95
Yellow 10	590nm - 40mcd @20mA	ZD-2005	$2.95	$2.60	$1.95
Green 10	565nm - 100mcd @20mA	ZD-2010	$2.95	$2.60	$1.95

OPEN A STORE ACCOUNT WITH JAYCAR

Jaycar is now accepting account applications from all established companies who can exhibit good trade references. For application details see our Store Managers.

INFRARED LEDS

Infrared LEDs - Transmitters

3mm EMITTING DIODE

With a blue transparent lens. Similar specifications as our ZD-1945.

Specifications	
Forward current (If)	50mA
Peak forward current (Ip)	100mA
Forward voltage (VF)	1.3V
Power dissipation (Pd)	100mW max

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1946	$1.25	$0.90	$0.65

5mm EMITTING DIODE

With a blue transparent lens.

Specifications			
Forward current (If)	50mA max	Peak spectral wavelength (IR)	940nm @ 20mA
Peak forward current (Ip)	1.2A	Spectral bandwidth (DI)	50nm@20mA
Forward voltage (VF)	1.2V @ 20mA	Reverse voltage (VR)	5V max
Power dissipation (Pd)	100mW max	Viewing angle	30°
		Material	GaAs

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1945	$1.25	$1.10	$0.85

Infrared LEDs - Receivers

INFRARED PHOTOTRANSISTOR

5mm LED with a clear transparent lens.

- Collector: Short leg
- Emitter: Long Leg

Specifications			
NPN collector-to-emmiter breakdown voltage	30V	Collector dark current	100nA@10V(Vce)
Emitter-to-collector breakdown voltage	5V	Rise and fall time	3uS @ 5V(Vce)
Collector-to-emmitter saturation voltage	0.8V max	Power dissipation	100mW max

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1950	$1.25	$1.10	$0.85

IR LED RECEIVER

Consists of an infrared photo diode and signal processing circuitry, (amplifier, limiter, bandpass filter & demodulator). It will detect the modulated pulse from an IR Remote Control & give a TTL level output.

- Data sheet available - see website.

Specifications			
Supply voltage	5V typ.	Supply voltage max	5.5V
Current consumption	0.95mA	Arrival distance Length	12m typ.
Center frequency	37.9kHz	Directivity characteristics	
Horizontal	45°	Vertical:	35°

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1952	$6.95	$6.25	$4.75

BP104 PHOTODIODE

Small square device measuring 4(W) x 5.4(L) x 2(D) mm.

Specifications			
Reverse voltage	20V max	Forward voltage	1.3V @ 100mA
Spectral sensitivity	34uA @ 5V	Wavelength of max. sens	950nm
Spectral range of sensitivity	800 to 1100nm	Half angle	+/- 60°
Dark current	2nA @ 10V	Open-circuit voltage	330mV
Short-circuit current	17uA	Rise and fall time	20ns @ 5V
Capacitance	48pF	Cathode marking	flag on leg

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1947	$3.75	$3.30	$2.60

5MM PHOTODIODE

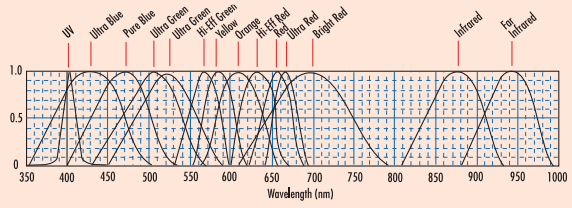
Radiant sensitive area (receiving) is on the side of the device. Size 6.7(H) x 4.8(W) mm.

Specifications	
Reverse voltage	32V
Spectral range of sensitivity	970nm
Reverse dark current	5nA
Turn on/off time (typical)	50ns
Capacitance	25pf
Open-circuit voltage	350mV

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1948	$1.25	$1.10	$0.85

TECH TIP

NORMALISED FREQUENCY RESPONSE CURVE OF LED CAPABILITY



TSOP4136 IR RECEIVER

Consists of PIN diode, pre-amplifier, AGC, pass filter, and demodulator. The main benefits are high speed data rates, short burst transmission codes, and suits cable TV remotes.

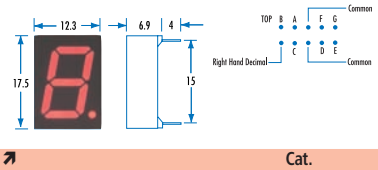
Specifications	
Supply voltage	4.5-5.5V
Supply voltage max	6V
Current consumption	1.2mA
Arrival distance length	20m
Centre frequency	36kHz
Directivity characteristics	Horizontal 45°, Vertical 45°

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1953	$2.25	$1.95	$1.55

7 SEGMENT LED DISPLAYS

Small Displays - Red

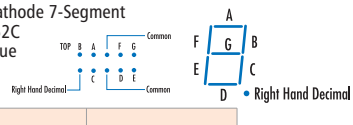
FND500 / LTS543R / S505RWB COMMON CATHODE
FND507/LTS542R/S50 RWB COMMON ANODE



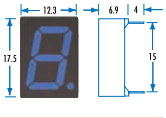
	Cat.	Qty 1+	Qty 10+	Qty 25+
Common Cathode	ZD-1855	$3.45	$3.05	$2.30
Common Anode	ZD-1857	$3.45	$3.05	$2.30

Small Display - Blue

Blue Common Cathode 7-Segment Display - ASD-052C
Display colour Blue



Specifications	
Case dimensions	17.5(H) x 12.4(W)mm
Digit height	13.2mm
Forward voltage (VF)	3.5V
Power dissipation	100mW max
Forward current (If)	35mA max



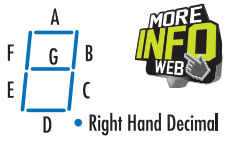
	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1856	$6.95	$6.25	$4.75

Super Large Display - Red

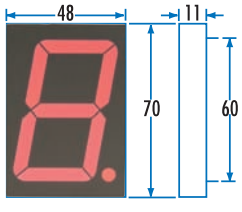
COMMON CATHODE

Actual numbers 2.3" (58mm) high. Ideal for house numbers, clocks, etc.

- Red 635nm



Specifications	
Digit height	58mm
Case dimensions	70(H) x 48(W)mm
Luminous intensity (IV)	4mcd per segment @ 10mA
Viewing angle	150°
Forward voltage (VF)	Segments 8V, decimal 2V
Face colour	Grey
Max current per segment	30mA
Forward current (If)	10mA

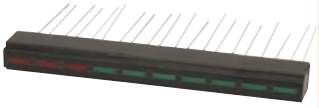


	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1850	$13.95	$12.35	$9.75

LED Bargraphs & Laser Modules

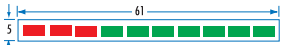
BAR GRAPHS & DISPLAYS

LED Bar Graph



5mm x 2.5mm rectangular LEDs mounted in a black housing. Ideal for VU meters or where any visual level is required.

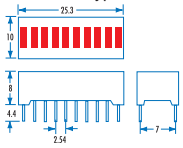
- VU 7 Green & 3 Red

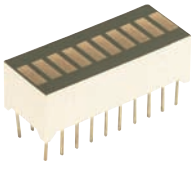


	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1702	$5.45	$4.90	$3.75

DIL LED

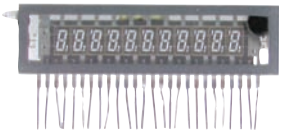
Ten individual LED elements housed in a 20 pin package to form a compact linear bar display which may be stacked end to end to create bargraphs of different lengths. Will plug into a standard 20 pin IC socket.
10 red LEDs. Typical intensity is 2.2mcd per LED.





	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1704	$4.45	$3.95	$2.95

11 Digit Fluoro Display



Vacuum fluorescent displays - still look the best. Each digit measures 6.0(H) x 3.5(W) mm, 11 digits in all. The display also features an apostrophe in the top right hand corner of the digits, and a semicolon (;) in the bottom in all 11 digits.

- Futaba brand
- Electrical and mechanical data is included.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1880	$2.95	$2.60	$1.95

DRIVER IC ALLEGRO BRAND UDN6118A FOR FLUORO DISPLAY ABOVE.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1882	$8.95	$7.95	$6.25

4 Digit Field Effect LCD

Suitable for meters, gauges, timers, counters and 12/24hr clocks. Extremely easy to drive and no external driver IC required. 40 pin package. Use Cat PI-6470 for socket mounting (2pc required)

Specifications	
Driving voltage	3 volts
Digit height	12.7mm
View area	45 x 17
Display size	51 x 30.5mm
Pin spacing	2.5mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZD-1886	$8.95	$7.95	$6.25

Electric Car

Makers Name: Duncan Cairncross
Location: New Zealand

I have completed an electric car!! It has just passed certification for road use (in New Zealand). I am currently waiting for final documentain which will enable me to get it road registered. It uses a home-built controller and charger made with purchases from Jaycar.

For more details scan the QR code or go to www.jaycar.com.au/makers

LASERS

10mW Laser Diode

10mW laser diode component, red in colour & supplied with 7mm dia collimating lens.

Specifications			
Threshold current	24mA	LD reverse voltage	2V PD
Operating voltage	2.4V	Reverse voltage	30V
Operating current	40mA	Size	TO-18 (5.6mm dia)
Optical power	10mW		

Size	Cat.	Qty 1+	Qty 10+	Qty 25+
TO-18	ZD-1955	$6.95	$6.25	$4.75

1mW Laser Module - Red

Includes laser diode mounted on a PCB with a battery spring and on/off switch. Simply connect 3 x 1.5V batteries - negative to spring, positive to case & you have an experimenter's laser. See website for datasheet.

- 1mW output.

Output	Cat.	Qty 1+	Qty 10+	Qty 25+
1mW	ST-3115	$9.95	$8.75	$6.75

10mW Laser Module - Green

The human eye is around 20 times more sensitive to green light than red, so this beam appears to be very bright indeed. This laser module consists of a 10mW laser diode, lens, and driver PCB. Simply connect a 3VDC supply, and you have a great high power laser. See website for datasheet.

Specifications	
Operating voltage	3VDC.
Operating current	150 - 300mA.
Output wavelength	532nm.
Optical power	<7 - 10mW.
Dimensions	65(L) x 11(Ø)mm.

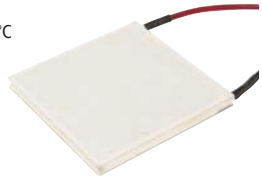
Output	Cat.	Qty 1+	Qty 10+	Qty 25+
10mW	ST-3117	$79.95	$71.95	$55.95

PELTIER MODULES

Thermoelectric (Peltier) Modules

These are a solid-state devices which operate as a heat pump to transfer heat utilising the Peltier effect. Suitable for cooling or heating applications up to 100°C.

- Measures: 40 x 40 mm with lead wires
- Temperature differential (DT) (Th=27°C): >=68°C
- Optimum input voltage (Vmax) (Th=27°C): 15V



33.4W ZP-9100	
Optimum input current (Imax) (Th=27°C)	4A
Maximum cooling power (Qmax)	33.4W
51.4W ZP-9102	
Optimum input current (Imax) (Th=27°C)	6A
Maximum cooling power (Qmax)	51.4W
68.09W ZP-9104	
Optimum input current (Imax) (Th=27°C)	8A
Maximum cooling power (Qmax)	68.09W

Cooling Power	Cat.	Qty 1+	Qty 10+	Qty 25+
33.4W	ZP-9100	$12.95	$11.35	$10.35
51.4W	ZP-9102	$16.95	$14.95	$13.35
68.09W	ZP-9104	$19.95	$17.70	$15.70

Pressboard Insulation Material

Similar to Presspahn Elephantide®, this product is a heavily pressed craft-type board which is used as an insulator in mains products. It can be scored, folded and formed into many shapes, particularly into boxes or partitions to isolate mains circuits from fingers. It has good abrasion resistance and is often used in areas where chafing from vibration can occur.

- Thermal Rating: 150°C
- Dielectric Strength: 12kV/mm.
- Sheet thickness: 0.8mm
- Sheet dimensions: 225(H) x 208(W)mm.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HG-9985	$3.95	$3.45	$3.15

NON STATIC SHEETING

Conductive Foam

Non-static sheeting for storing CMOS, ICs, LSIs, etc.

- Will store up to 150 ICs on one sheet
- Reusable.
- Size 225x150mm.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ZV-9998	$9.95	$8.75	$6.75

GAS SENSORS

Hot Wire Semiconductor Gas Sensors

COMMON SPECIFICATIONS FOR GAS SENSORS

- General air contaminant, including; NH_3 (Ammonia), NO_2 (Nitrous Oxide), Alcohols, Benzene, smoke etc. Sensitivity of individual gases varies.
- General air contaminants including; n-Hexane, Benzene, NH_3 (Ammonia), Alcohol, smoke, CO (Carbon Monoxide). Sensitivity to individual gases varies

CARBON DIOXIDE (CO_2) GAS SENSOR (350-10,000PPM)

NEW LOWER PRICE

- Good CO_2 sensitivity
- Operates over wider temp/humidity range
- Long term stability and reproducability
- Element behind stainless steel mesh

Flammable Gases	
Combustible gas/smoke:	100 - 10,000ppm
Town gas:	300 - 5,000ppm
Carbon monoxide + combustible gas	
Methane/Natural Gas:	500 - 10,000ppm
Hydrogen:	50-10,000ppm

Air Quality Control	
• O_3 (Ozone):	10ppb - 2ppm
• H_2S (Hydrogen Sulphide)	
• Freon (or other CFC's):	500 - 10,000ppm
• C_2H_2 (Acetylene):	500 - 2000ppm
• NH_3 (Ammonia)	

Applications
Air quality monitoring in traffic tunnels
Fermentation process control
Room CO_2 concentration monitoring
Fire control systems
Large ship bilge monitoring
Mining
See website for comprehensive data schematics, product explanation, performance graphs etc.

Specifications	
Heat voltage:	6.0 +/-0.1V @1.2W,
Output:	0-50mV (350-10,000ppm CO_2)
Operational temp:	-20° to +50°C

	Cat.	Qty 1+	Qty 10+	Qty 25+
CO_2 Sensor	RS-5600	$29.95	$26.90	$23.70

ALCOHOL FUME SENSOR (0.05 TO 10.0MG/L)

- Very sensitive to CH_3-OH alcohols
- Benzene sensitivity
- Simple drive circuit
- Stable, long life
- Fast response
- Element behind stainless steel wire mesh

Applications
• Fermentation process control • Blood-alcohol checker (BAC testing). See our website for comprehensive data, internal schematics with diagram of external component requirements, comprehensive product data, performance graphs etc.

Specifications:	
Heater voltage:	5.0V AC or DC at less than 750mW
Operational temp:	-10 to +50°C
Sensing resistance:	1.0MΩ to 8MΩ (0.05mg/l to 10.0mg/l), Assumes O_2 concentration: 21%

	Cat.	Qty 1+	Qty 10+	Qty 25+
Alcohol Sensor	RS-5605	$13.95	$12.35	$10.95

TRANSDUCERS

Ultrasonic Transducer

- Compact and lightweight
- High sound pressure level
- Low power consumption
- High sensitivity, reliabilty & stability
- Transmitter & receiver in one unit

Application:
- Parking sensors
- Proximity sensor
- Motion detector
- Automatic doors
- Intruder alarm
- Water level meter

Specifications:			
Frequency	40kHz	Input voltage	140V
Transmitting sound pressure	>105dB	Operating temperature	-40°C to +85°C
Receiving sensitivity	>-74dB		

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AU-5550	$5.95	$5.25	$4.75

Ultrasonic Transducers

Ultrasonic transducers as used in Silicon Chip projects such as the ultrasonic cleaner and boat antifouling. See website for data sheets.

Specifications:	AU-5554	AU-5556
Static capacitance:	2500pF	3000pF
Resonant frequency:	42kHz	40kHz
Bandwidth:	3.9kHz	3.9kHz
Impedance:	25 ohms	15 ohms
Insulated impedance:	1000M ohms	1000M ohms
Power:	35 Watt	50 Watt

	Cat.	Qty 1+	Qty 5+	Qty 10+
35 Watt - 42kHz	AU-5554	$49.95	$44.90	$39.90
50 Watt - 40kHz	AU-5556	$59.95	$53.95	$47.90

WIRELESS SYSTEMS

433MHz Wireless Modules

These are pre-built 433MHz wireless transmitter / receiver modules. They feature ASK encoding and are ideal for devices using short data bursts such as remote controls, trigger pulses etc.

Specifications	Transmitter Module	Receiver Modules
Output power	3dBm.	
Supply voltage	3VDC	5VDC
Supply current	10mA max	10mA max
Data rate	300bps to 10kbps	300bps to 10kbps
PCB measures	18.5(H) x 14.5(W)mm (excl. pins)	42(H) x 11(W)mm (excl pins)

MORE INFO WEB

	Cat.	Qty 1+	Qty 10+	Qty 25+
Transmitter	ZW-3100	$10.95	$9.75	$8.75
Receiver	ZW-3102	$10.95	$9.75	$8.75

2.4GHz Wireless AV Module

They have a tiny footprint making them even easier to use in any number of applications including toys, machinery, and a myriad of surveillance installation applications. They provide ultra high frequency stability thanks to a PLL (phase locked loop) tuning system, and four selectable channels within the acceptable 2.4GHz range. They only require 5VDC and a few components to get running, so they are extremely versatile. The receiver module measures 40 x 30mm, and the transmitter is just 30 x 28mm. Datasheets can be found on our website for all the technical details and application notes.

Video	
Output signal level	1Vp-p +0.2V typ
S/N ratio (100kHz, 1Vp-p Sine Wave)	40dB,min.
Audio	
Output signal level	3Vp-p +0.2V, typ
Output frequency	50Hz - 20KHz
Harmonic distortion (THD)	3%max
S/N ratio	50dB, typ(+3dB).

General Specifications:	
Operating frequency	2.4G to 2.483GHz
Channel selection	PLL Synthesizer
Video-audio modulation / Demodulation type	FM-FM
Supply voltage	DC +5V (+2%)
Receiver Specifications:	
Input signal level range	-85 to -10dBm
supply current	150mA to 170mA

	Cat.	Qty 1+
Receiver	QC-3599	$17.95

VALVES

12AX7WA/7025 Valve

Russian made SOVTEK brand dual triode preamp valve used in countless musical instrument amplifiers and high-end hi-fi equipment.Suits socket PS-2082 shown below. High gain version of 12AU7

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZA-6000	$34.95	$31.45	$24.35

EL34EH/6CA7 Valve

Russian made Electro-Harmonix brand power pentode manufactured to the original Mullard (UK) specifications. As used in many Marshall musical instrument amplifiers and ultralinear output stages of hi-fi amplifiers. Suits socket PS-2080 shown below.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZA-6005	$49.95	$44.90	$34.90

5881WXT/6L6GC Valve

Russian made SOVTEK brand power tetrode used mainly in musical instrument amplifying applications.
- Recreates the tone of NOS Mullard (UK) 6L6GCs.
- Suits socket PS-2080 shown below.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ZA-6010	$49.95	$44.90	$34.90

Valve Sockets

9 PIN:
This unit is moulded from high grade thermosetting resin. The pins are adequately plated and have deep solder terminals, sufficient for several hard wiring points per pin. Sturdy flange mount is meant for fitting above the chassis.

8 PIN:
Made from similar materials to above, but with moulded key.

- Can be mounted above or below the chassis.

	Cat.	Qty 1+	Qty 10+	Qty 50+
9 Pin	PS-2082	$5.95	$5.25	$4.75
8 Pin	PS-2080	$6.95	$6.25	$5.50

SMART CARDS/PROGRAMMERS

Wafer Cards

With PIC16F84A + 24LC16B Inbuilt (GOLD). This is a multi-chip 'smart card' based on the PIC 16F84A and is coupled with a 24LC16B EEPROM, and compatible with most reader/programmer units available.

- 16K memory.
- ISO 7816-1 compatible pin-out and card body
- DC to 10 MHz operating speed
- Reprogrammable with code protection
- 1024 x 14 on-chip programmable memory
- 64 x 8 internal EEPROM memory
- Enhanced code protection
- Greater than 1,000,000 Write/ Erase cycles

	Cat.	Qty 1+	Qty 10+	Qty 25+
Gold	ZZ-8800	$8.95	$7.95	$6.95

Full Function Smart Card Reader / Programmer Kit

This full function programmer allows you to program both the microcontroller and EEPROM in the popular gold, silver and emerald wafer cards. It hooks up to the serial port of your PC and can be operated as a free-standing unit or installed in a PC drive bay. Cards used need to conform to ISO-7816 standards, which includes ones sold by us.

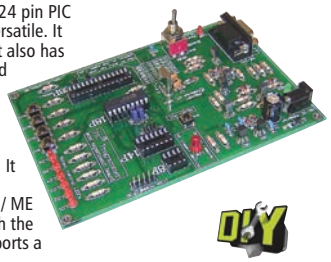
- Powered by 9V via a 9-12VDC plugpack (use MP-3146) or 9V battery.
- Instructions outline software requirements that are freely available on the Internet.
- Kit supplied with PCB, wafer card socket & all electronic components.
- PCB measures: 141 x 101mm

Jaycar and Silicon Chip Magazine will not accept responsibility for the operation of this device, its related software, or its potential to be used for unlawful purposes.

	Cat.	Qty 1+	Qty 5+
	KC-5361	$54.95	$49.45

Velleman PIC Programmer / Checker Module

Supporting 8 pin, 14 pin, 18 pin, and 24 pin PIC microcontrollers, this board is quite versatile. It operates as a regular programmer, but also has on-board test functions using LEDs and pushbuttons. This makes experimenting and debugging faster and easier, reducing the need for constant chip swapping between programming and operational circuits. It includes a copy of PIC programming software, and can run on Win 95 / 98 / ME / NT / 2000 and XP. It operates through the serial interface for simplicity, and supports a huge array of microcontrollers.



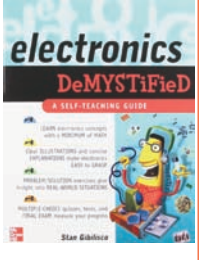
The list below is some, but not all of them:
PIC12F629, PIC12F675, PIC16C83, PIC16CR83, PIC16F83, PIC16C84, PIC16CR84, PIC16F84, PIC16F84A, PIC16F870, PIC16F871, PIC16F872, PIC16F873, PIC16F873A, PIC16F874, PIC16F874A, PIC16F876, PIC16F876A, PIC16F877(A)(ICSP only), PIC16F627, PIC16F627A, PIC16F628, PIC16F628A, PIC16F648A, PICF630, PIC16F676, PIC16F818, PIC16F819.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4402	$139.00	$124.95	$110.95

ELECTRONIC BOOKS

Electronics Demystified

Part of the popular Demystified series, this book teaches you electronics theory, it does not include projects. If you have enjoyed the Short Circuits or Fun Way Project books and want to know more, this is your next book. It places all that project experience on a sound technical grounding. It avoids heavy mathematical formulae, but, be warned there are equations in this book. They are not seriously hard though! The book starts at simple DC circuits, goes through AC circuits, impedance, reactance, power supply concepts, semiconductor basics, amplifiers, oscillators, RF, telecommunications and finishes on antennas. At the end of each chapter is a straightforward quiz (multiple choice) to make sure you are on top of concepts. This is the best-written technical book on novice to moderately advanced electronics we have seen. Read this book and understand it - you are a serious techo.

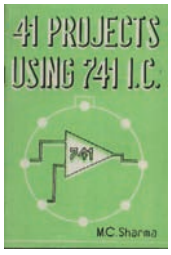


- 468+ pages softcover.
- Dimensions: 230 x 185mm.

	Cat.	Qty 1+
	BM-7106	$36.95

41 Projects Using 741 IC

By M C Sharma. The 741 OP amp IC is very inexpensive yet is comparable to the best in respect of versatility and performance. We can't list every one of the 41 kits but here are a few examples: inverting and non-inverting AC and DC amps, crystal, magnetic, guitar, telephone and mic preamps, 3W and 12W amps, intercom, AC and DC motor control, schmitt trigger, square wave generator, flasher, timer light op relay, DC voltmeter, AC millivoltmeter, RPM counter, A to D converter, etc.



- Soft cover, 37 Pages 140 x 210 mm.

	Cat.	Qty 1+
	BM-2430	$7.50

555 Timer & Its Applications

The 555 Timer IC is probably the most used IC in the world. It gives accurate timing range of micro seconds to hours. This book describes the functions and operation of the 555, then explains 21 projects to build using the IC. Some of these include photo timer, touch plate controller, car wiper control, car lights turn off, flashers, generators, delays auto power on and off, Ni-Cd charger, frequency divider, light operated relay, etc. An ideal book for the electronic hobbyist and experimenter.

- Soft cover, 43 pages 138 x 208 mm.

	Cat.	Qty 1+
	BM-2466	$7.00

309 Circuits Book

Companion to the popular 308 circuits with many useful designs in audio, video, car, computer, hobby, home, test, power supplies, chargers and more. The book is divided into categories to help find circuits easier. Each circuit has a diagram and a photo of the finished project.

- Softcover, 428 pages, 240 x 184mm

	Cat.	Qty 1+
	BM-2470	$34.95

Programming & Customising the PIC Microcontroller

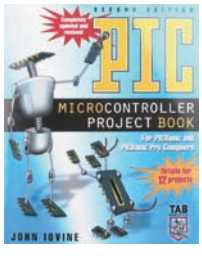
Tap into the latest advances in PIC technology with the fully revamped third edition of this brilliant book. Certainly the definitive text on the subject, this indispensable volume comes with more than 600 illustrations and provides comprehensive, easy-to-understand coverage of the PIC microcontroller's hardware and software schemes. With 100 experiments, projects and libraries, you get a firm grasp of PICs, how they work and the ins-and-outs of their most dynamic applications. This updated edition features a streamlined, more accessible format and concentrates on the three major PIC families, to help you fully understand Assembly, BASIC, and C programming languages. It also covers the latest program development tools and includes a refresher in electronics and programming as well as reference material.

Topics covered:
- Setting up your own PIC microcontroller development lab
- PIC MCU basics • PIC microcontroller interfacing capabilities, software development, and applications
- Useful tables and data • Basic electronics • Digital electronics • BASIC reference • C reference • 16-bit numbers • Useful circuits and routines to get your applications up & running
- Softcover • 1263 pages

	Cat.	Qty 1+
	BT-1347	$94.95

PIC Microcontroller Project Book (2nd Edition)

This book is completely updated and revised from the popular first edition. It is a fantastic book for those who really want to get into microcontrollers, particularly the popular 16F84. It shows you how to install compilers (in BASIC) into your computer so you can program the PICS. Once you have done that you can learn more about PICS in general with several 'primer' chapters. Later in the book you will be presented with "real world" projects such as speech synthesisers; DC motor and stepper and servo motor control; use of sensors etc.



- 12 projects in all.
- 290+ pages.
- Softcover.
- Dimensions 230(H) x 185(W)mm.

	Cat.	Qty 1+
	BM-7102	$59.95

Our love of motoring - despite everything we love our cars, trucks, caravans, motorhomes, motorbikes and we want to fill our vehicles with the latest technology.

As usual, Jaycar has the latest in vehicle gadgets. Whether they be reversing or forward looking Cameras, Parking Assist Aids, TV's etc you will find them all here. Look to the right - Car Event Recorders!

Related to this you will find new LED Car Headlamps on page 235, amazing. We also have some great new LED Car/Boat Spotlights on the next page & page 237. Their brightness will dazzle your senses. You must also check out the new VHF & UHF Transceivers & Marine Sound products & not to forget some great new Flashlights as well!

Enjoy!

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CAR EVENT RECORDERS

HD Car Event Recorder with LCD

NEW 2013

Records the vision through the windscreen as you drive, which can be played back on the colour 2.4" colour LCD at any time. Use it to prove what happened in a car accident, record a scenic drive or replay a hot lap around the race track. Connect power using the provided cigarette lighter cable, attach to the windscreen using the suction mount and insert an SD memory card (available separately). Other features include HDMI output to playback on a large TV, JPG snapshot button, two bright LEDs to improve night time recording, and Li-ion battery to extend the recording should the power be disconnected. Suppliec with USB cable to download data to a MAC or PC.

- 5MP HD Sensor
- Cycled Recording
- 120° wide angle lens
- Microphone
- Motion detection function
- Supports micro SDHC cards up to 32GB

Specifications	
Full HD	1080p (1920 X 1080 / 1440 x 1080)
HD	720p (1280 x 720) @ 30fps
WVGA	(848 x 480) @ 30fps
VGA	(640 x 480) @ 60fps
Video format	H.264/AVI
JPG	2592 x 1944 pixels
Main unit measures	100(L) x 60(W) x 23(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-3840	$149.00	$133.95	$118.95

HD Car Event Recorder with LCD & GPS

NEW 2013

Mounts to the car windscreen to record vision, audio, GPS coordinates and speed to an SD memory card (available separately), which can be played back later to prove what happened in a car accident. The camera cycle records until the G-sensor is triggered during excessive braking, acceleration or collision. You can also manually trigger the recording if you see an incident ahead. Use the 2.4" colour screen to help align the camera or to playback any recordings. Connect to a PC with Internet connection to see the car location on GoogleMaps during the playback. Other features include HDMI output to playback on a large TV, six infrared LEDs to improve night time recording, and Li-ion battery to extend the recording should the power be disconnected.

- GPS
- G-sensor
- Cycled Recording
- 95° wide angle lens
- Microphone
- Supports micro SDHC cards up to 32GB

1 YEAR WARRANTY

Specifications	
Sensor	5MP HD
HD	720p (1280 x 720) @ 30fps
Video format	H.264/AVI or MP4

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-3793	$199.00	$178.95	$158.95

Event Recorders & Reversing Camera Kits

Amazing "Black Box" Car Multifunction Unit

A great multi-functional device that will replace most of your electronic gadgets in your vehicle. This 5" touch screen LCD fits onto a windscreen adaptor in a very similar fashion to a GPS mapping device. It has a video camera on its reverse side so that you can record what you see through your windscreen. (Very handy for road rage or accident recording). It is also an MP3 player, a video player, a photo viewer, calculator/calendar, FM radio and has windows CE. It also has a GPS navigation function, however no mapping software is supplied with the unit. This can be purchased directly from GPS mapping solution companies easily over the internet. It will also work with downloaded mapping software from the internet. Supplied with all relevant leads and window screen bracket.

- 5.0 inch TFT panel.
- Touch screen operation
- Built-in GPS antenna
- Supports MicroSD/MMC card (From 1GB up to 8GB)
- Resolution: 800RGB(H)x480(V)
- 3.5mm Stereo Audio output
- MINI USB port.
- Built-in Lithium battery

Specifications	
Video file format	ASF, AVI, WMV, 3GP, MP4, FLV
Audio file format	MP3, WMA
Image file format	BMP, JPG, PNG
E-book reader software	TXT
Dimensions	134(W) x 83(H) x 13(D)mm

1 YEAR WARRANTY

Note: GPS Mapping software not included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-3812	$169.00	$151.95	$134.95

IN-CAR BABY MONITOR

Rechargeable Camera & Monitor Kit

NEW 2013

A multi-purpose camera and monitor kit which can be used in the home or in the car for keeping an eye on an infant, or for general household surveillance. It includes a 3.5" LCD and a camera as well as suction mounts for each. Both the camera and monitor are completely wireless with internal rechargeable batteries so you need not worry about cabling at all. The units come pre-paired straight out of the box, so it's simply a matter of switching both on and audio/video will be streamed live from the camera to the monitor. Couldn't be easier! The camera features IR LEDs allowing it to feed viewable video footage back to the monitor. Mains adaptor and cigarette lighter cable are provided for recharging the camera and monitor units.

Specifications	
LCD	3.5" TFT LCD
Transmission Frequency	2.4GHz-2.48GHz
Transmission Power	17dBm
Operating Frequency	2450MHz
Unobstructed range	250m
Modulation mode	FHSS
Battery life	5 hours
Camera dimensions	60(L) x 60(H) x 25(D)mm (excludes antenna)
Monitor dimensions	100(L) x 80(H) x 16(D)mm

TECH TIP! 2.4GHz DIGITAL

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QC-3217	$129.00	$115.95	$102.95
Spare Camera	QC-3211	$79.95	$71.95	$63.95

WIRELESS REVERSING CAMERA KITS

Wireless 2.4GHz Reversing Camera & LCD Monitor

Reversing cameras can be tricky to install, especially running video and other cables under the dash to the display unit. Like a GPS, the LCD on this unit plugs straight into your car's cigarette lighter socket and receives video via 2.4GHz wireless from the reversing camera.

- Camera can be mounted internally to fire through the rear window or externally on the number plate or bumper
- Transmission range is up to 80m
- Suitable for very large motorhomes, trucks or caravans.

TECH TIP! 2.4GHz

Specifications	
LCD	3.5"
Power	12VDC
Range	Up to 80m
Image Sensor	1/4" Colour CMOS
Camera Resolution	840 x 480 VGA
Frequency	2.4GHz
Channel	1
TV System	PAL/NTSC
Dimensions	110(W) x 76(H) x 21(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3796	$149.00	$133.95	$118.95

Wireless 2.4GHz Rear View Mirror Reversing Camera

Wireless technology makes for easy installation. The monitor fits securely over your existing rear view mirror and can be quickly removed when needed.

- The brackets are adjustable so it will fit mirrors from 55 - 85mm wide
- Powered simply by plugging it into a cigarette lighter socket
- Incorporates a reversing camera that transmits video signals via 2.4GHz frequency to the monitor so there's very little wiring to be done
- Camera can be mounted internally or externally.

Specifications	
LCD	3.5"
Power	12VDC
Range	Up to 80m
Image Sensor	1/4" Colour CMOS
Camera Resolution	640 x 480 VGA
Frequency	2.4GHz
Channels	1
TV System	PAL/NTSC
Dimensions	280(L) x 95(H) x 26(D)mm

TECH TIP! 2.4GHz

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3795	$169.00	$151.95	$134.95

WIRELESS REVERSING CAMERA KITS (CONTINUED)

Wireless 2.4GHz Digital Reversing Camera Kit With 3.5" LCD

Equip your car, truck, or van with a reversing camera to help prevent accidents and damaging your vehicle. This digital wireless 2.4GHz model comes with a 3.5" LCD which produces crystal clear video and can be mounted to a windscreen with the supplied suction mount bracket. The long range digital wireless transmission also provides hassle free installation. In fact, the monitor itself plugs straight into your cars cigarette lighter socket. Overlayed on the LCD are parking guides which help with vehicle alignment when reverse parking and judging distances from walls or other objects.

The wide angle camera comes with an adaptor allowing it to be flush mounted for a more unobtrusive look or bracket mounted. The unit will accept up to 4 cameras (additional camera available QM-3803) for greater visibility of your surrounds. A sound investment that will give you peace of mind.

NEW 2013

- Transmission distance: 100m line of sight
- Emitting frequency: 18dBm
- Spread spectrum: Frequency hopping
- Hopping frequency: 1200 hops/s

Specifications	
LCD	3.5"
Power	12/24VDC
Range	100m line of sight
Image Sensor	1/4" MT9v136
Effective pixels	680 x 512
Camera Resolution	420 TV Lines
Frequency	18dBm
Channel	2
TV System	PAL / NTSC
Dimensions	113(L) x 76(H) x 24(D)mm

TECH TIP! 2.4GHz DIGITAL

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3802	$249.00	$225.00	$198.95
Spare Camera	QM-3803	$149.00	$133.95	$118.95

Wireless 2.4GHz Digital Reversing Camera Kit with 7" Monitor

NEW 2013

To be used in trucks, buses and other large vehicles with big blind spots. This 2.4GHz DIGITAL reversing camera system comes with a large 7" colour LCD and wide angle wireless reversing camera. The digital system allows for uncorrupted clear transmission of video data as well as better range and security. Both the camera and monitor are fitted to tough aluminium mounting brackets with sun shades, however they can be removed if a different mounting method is preferred.

- The system supports expansion up to 4 cameras (additional camera available separately QM-3805).

Specifications	
LCD	7.0"
Power	12V - 24VDC
Range	10m unobstructed
Image Sensor	1/4" Sharp CCD
Effective pixels	800 x 480
Camera Resolution	420 TV lines
Frequency	2.4GHz
Channel	4
TV System	PAL / NTSC
Dimensions	195(L) x 121(H) x 21(D)mm

TECH TIP! 2.4GHz DIGITAL

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3804	$399.00	$359.00	$319.00
Spare Camera	QM-3805	$199.00	$178.95	$158.95

Wireless 2.4GHz Reversing Cameras and LCD Monitor Kit - 2 Cameras

The cameras can be mounted externally on the number plate of the vehicle or trailer and just need to be wired to the reverse lights. Each camera transmits wirelessly to the 3.5" colour monitor which mounts to the windscreen using a suction cup and plugs into the cigarette lighter socket for power.

- 2.4GHz transmission provides a range of up to 80m making it suitable for a wide range of vehicle and trailer combinations including very large motor homes, trucks and caravans.
- CMOS colour
- Manual vertical angle adjustment

Specifications	
LCD	3.5"
Power	12VDC
Range	Up to 80m
Image Sensor	1/4" Colour CMOS
Effective pixels	320 x 240 pixels
Camera Resolution	640 x 480 pixels
Frequency	2414MHz, 2468MHz
Channel	V1/V2 switching
TV System	PAL/NTSC
Dimensions	110(W) x 77(H) x 22(D)mm

TECH TIP! 2.4GHz

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3797	$199.00	$178.95	$158.95

WIRED REVERSING CAMERA KITS

Ultimate Rear-View System

NEW 2013

This unit enables you to monitor the area to the rear of a bus, truck, caravan, RV etc, view a much wider field-of-view than any rear view mirror array and works in the dark with IR lighting. The system comes with a 7" (diagonal) LED display that has two video inputs, so you could (for example) have another camera monitoring, say bus passengers (camera extra). The rear vision camera is fitted with a SHARP (Japan) CCD device with 18 x IR LED's for night vision illumination. The housing of the camera is metal, IP65 and has a gymbal bracket. It can be mounted externally. The kit is supplied with 5m of pre-terminated connecting cable. A remote control for the monitor is also provided.

In keeping with the professional status of the product, it will work from 12 or 24VDC.

Dimensions:
- Monitor 178 x 120 x 28mm
- Camera 74 x 48 x 65mm

Specifications	
LCD	7"
Power	12/24VDC
Range	Wired
Image Sensor	Sharp
Camera Resolution	420 TV Lines
Frequency	Wired
Channel	2
TV System	PAL/NTSC
Dimensions	178(L) x 120(H) x 28(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3742	$199.00	$178.95	$158.95

Reversing Camera & Parking Kits

WIRED REVERSE CAMERA KITS (CONTINUED)

Reversing Camera with 5" LCD Monitor - Wired

An all-in-one reversing camera kit with a 5" slimline LCD. The kit includes a powerful suction mount bracket that allows you to swivel the vertical angle of the screen through a 90 degree range and a tiny reversing camera. Once activated, the LCD shows a distance overlay graphic to help you judge the proximity to an object. The screen docks securely in the supplied bracket, from which it draws it's power and video through a mini USB 2.0 port.

For security purposes you can easily remove the screen from the bracket and pop it in your glove box so as not to tempt potential thieves. An easy to setup and affordable car and truck reversing camera solution.

Specifications	
System specification	5" LCD
Connector	Mini USB 2.0
Dimensions	
LCD	127(L) x 82(W) x 15(D)mm
Bracket	133(H) x 65(Dia)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
QM-3741	$199.00	$178.95	$158.95

Reversing Camera with Sensors & 3" LCD Monitor - Wired

A complete automotive reversing solution! This unit integrates 4 ultrasonic sensor as well as flush mount low light wide angle reversing camera. Information and images are displayed through the 3" LCD Monitor. Parking assist lines are overlayed and digital distance indication is displayed on the screen. Audible indication can be set on either voice or beep alert or both. Monitor displays time and date when not in reverse mode. A truly accurate and reliable reversing system that will save you time, money and stress of unfortunate reversing accidents.

- 3" TFT LCD monitor with parking assist lines
- OSD menu
- Flush mount or micro-tab camera available
- Shock, vibration and water resistant camera
- PAL or NTSC mode available
- Accurate digital distance and clear rear view shown on the monitor
- Audible warning and voice warning (optional), volume adjustable
- Self-test function
- Anti-false alert technology

1 YEAR WARRANTY

Specifications	
Power	12VDC
Screen	93(W) x 62(H) x 24(D)mm
Camera	33(L) x 20(Dia)mm

Cat.	Qty 1+	Qty 2+	Qty 4+
LR-8870	$199.00	$178.95	$158.95

PARKING ASSIST KITS

Front and Rear Parking Assist Kit

Front and rear parking sensor technology is usually a safety feature found in more expensive European vehicles. This parking assist kit allows you to install such a luxury and avoid unexpected accidents. With 8 sensors and a blue LCD display unit, easily mounted on top of your front windshield. Never misjudge or hit the curb again with precise detection up to 0.01m and individual sensor distance display. A smart and safe device for families with children or owners of larger vehicles with dangerous blind spots. The control unit allows you to select between voice or audible alerts. It features anti-false alert technology and a self-test function. Waterproof wire connectors and sensor are also designed to handle harsh weather conditions.

- Complete front/rear protection with 8 sensors

Specifications	
Input voltage	9 - 16VDC
Beep volume	50 - 70dB
Detection range	
Front	0.10 - 0.99m, 0.10 - 0.69m (reversing)
Rear	0.10 - 2.59m
Display range	
Front	0.30 - 0.99m, 0.30 - 0.69m (reversing)
Rear	0.30 - 2.59m
Display dimensions	104(W) x 75(D) x 41(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LR-8872	$199.00	$178.95	$158.95

Wireless Digital Vehicle Parking Assist System

A simple and easy to install ultra-sonic reversing system. This 4 sensor reversing system utilises a wireless connectivity between the monitor and the sensors of up to 30 metres making it suitable for larger vehicle installations such as trucks, buses, motor homes, caravans, etc. Distances from objects are accurately displayed on the 5 colour LCD display as well as voice and beep alerts.

- Complete rear protection
- Colour changing backlit LCD display with universal adjustment
- Wireless display - audible/voice & visual warning
- Self-testing function
- Detachable sensor with waterproof wire connector
- New anti-false alarm technology
- No interference with the car's electronics system
- Perfect performance in all weather conditions (-40°C +85°C)
- Heavy rainproof design
- Power: 12V
- Display Dimensions: 72(L) x 53(W) x 17(D)mm
- Sensor Dimensions: 23(L) x 21(Dia)mm

Specifications	
Voltage	12V ± 3V
Display range	2.5-0.3m
Detection range	2.5-0.1m
Operating temperature	-40°C +85°C
Beep volume	70-90dB
Input	<4W

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LR-8874	$99.00	$88.95	$78.95

REVERSING CAMERAS & SIDE VIEW CAMERAS

Flush Mount Mini Waterproof Camera for Cars or Trucks

Designed for use in vehicles to give drivers a clear view of car or truck blind spots. Reversing into tight spots, or parking in low light underground car parks is fraught with danger so any extra information being fed to you is going to help. A lengthy 5m composite RCA cable, a 730mm power cable, and the appropriate sized hole saw are included.

Specifications:	
Sensor	CMOS
Resolution (H x V pixels)	628 x 512
Horizontal resolution	420TV Lines
Max aperture	f1.2
Minimum illumination	0 lux
Composite cable length	730mm
Power supply	12VDC
Lens view angle	120°
Dimensions	31(L) x 20(Dia)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
QC-3513	$59.95	$53.95	$47.90

Colour CCD Wide Angle Waterproof Rear View Camera

A camera designed to assist drivers reversing their vehicles. The tiny camera is easily mounted with the attached mounting bracket and screws. Ideally it should be fixed to an area above your rear licence plate, or any area other suitable nearby area. The wide angle lens and minimum illumination of 0.2 Lux will you give you a more than adequate view of potential hazards behind your vehicle.

Specifications:	
Sensor	CCD
Resolution	512 x 582
Horizontal resolution	420 TV lines
Minimum illumination	0.2 lux
Max aperture	f1.2
Current draw	<50mA
Power supply	12VDC
Lens angle	120°
Dimensions	27(L) x 20(W)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
QC-3514	$99.00	$88.95	$78.95

REVERSING & SIDE-VIEW CAMERAS

Vehicle Side View/Front View Cameras

NEW 2013

These units (2pcs) attach to the side of your vehicle, or if you wish, the front. The camera is inside a low profile rubberised housing only 20mm high with high-quality 3M brand double-sided adhesive tape to permanently stick the cameras in place (Make sure the surface is CLEAN and you are sure where to place the cameras, as once you stick the tape down, that's where it stays!). A special wedge is supplied for each unit to get the view angle right. Ideal for long caravans or where you want side vision, say halfway along your vehicle. Kit comes with a left and right camera with power leads (12V) and coaxial video leads.

- Waterproof cameras/housings
- Night vision capability
- Will connect to any video monitor with a yellow RCA video input.

Specifications	
View angle	150˚
Lens	F=3.6mm/F=2.0
Operating temperature	-20 - +70 deg
Dimensions	70(W) x 38(D) x 24(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3521	$99.00	$88.95	$78.95

Mega Wide View Rear Vision Camera

NEW 2013

This unit simply mounts on any flat surface through an 18mm hole (A hole saw bit is supplied). Even though the camera itself is IP68 rated, it would be best to mount the camera as high as possible to avoid dirt and mud.

- Unbelievable 180 deg view angle. NOT fish eye!
- Will work as all round side view camera
- Normal/mirror image switchable
- Water resistant

Specifications	
Resolution	480 TV lines
Video out	1Vp.p. 75 ohm (Ok for the yellow video input of a monitor)
Lens	f=3.6mm, F=2.0
Back light control and white balance	Automatic
Operating temperature	-20 - +70˚C
Camera dimensions	22(Dia.)mm including bezel

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3520	$119.00	$106.95	$94.95

Bus / Truck Camera with Infrared LEDs

At times, anonymity breeds disobedience and places like buses can become a haven for anti-social behaviour. Littering and vandalism can affect the environment for everyone. This tough unit can be firmly mounted inside as a surveillance camera or outside as a reversing camera. The camera is fitted to a solid bracket that can be rotated in a vertical motion for the optimal view. An RCA composite video and audio connection are fitted for compatibility with most in dash and security LCDs.

- Infrared LEDs will allow night vision so nothing will escape the cameras view.

Specifications:	
Sensor resolution (H x V pixels)	510 x 492
Horizontal resolution (TV lines)	420
Minimum illumination	0.3 lux
Power supply	12VDC
IP Rating	IP67
Lens angle	80˚
Dimensions (including bracket)	73(L) x 45(W) x 53(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3519	$129.00	$115.95	$102.95

Automatic Shutter Reversing Camera

NEW 2013

The camera housing is equipped with a black metal shutter which protects the unit from flying stones etc., but particularly dust. The shutter opens when it senses +12V from your reversing lights, making it ideal for trucks, buses, caravans etc., however it could be mounted behind a rear windscreen and the shutter disabled.

Unit comes with heavy stainless steel mounting bracket and grommeted 4-pin connection lead. The actual case is a 2-piece rugged cast unit, rated to IP68.

- Ruggedly built

SHARP SENSOR INSIDE

Specifications	
Sensor	1/3" Sharp brand CCD
View angle	120˚
Night vision illumination	Up to 10m
Power	12V DC
Output	Standard 1V pp 75 ohm (video output will work with video input of any monitor)
Signal to noise ratio	>48dB
BLC/white balance	Automatic
Horizontal resolution	420 lines
Operating temperature	-20 - +70˚C
Dimensions	78(W) x 65(H) (with bracket) x 60(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3522	$199.00	$178.95	$158.95

IN-CAR LCD COLOUR MONITORS

3.5" LCD Car Dash-Mount Colour Monitors

Ideal reversing camera monitors that mount perfectly on your vehicles dashboard. You can also partner these LCD monitors with any video source for in-car entertainment or GPS etc. With two composite input options, the rear vision view is automatically activated when your reversing gear is engaged. Both models are powered by 12VDC.

3.5" FOLDABLE TFT LCD MONITOR

This TFT LCD monitor folds down to a compact shell for dust protected storage and to keep the driving line of sight unobstructed.

- Power supply: 12VDC 8W
- Crisp high resolution display
- TFT active matrix system
- Auto switching PAL (4.43MHz) and NTSC (3.58MHz)
- Included: RCA cable & adhesive mounting sticker

Cat. QM-3771

3.5" LCD MONITOR

Supplied with an adjustable swivel bracket and a clip on sun shade for optimal viewing.

- Power supply: 12VDC 10W
- PAL or NTSC
- Brightness, colour, contrast and tint controls
- Automatic mirror image selector for reversing camera
- Included: Mounting bracket & sunshade
- Dimensions: 100(W) x 87(H) x 25(D)mm

Cat. QM-3792

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
3.5" Foldable LCD	QM-3771	$59.00		
3.5" LCD Monitor	QM-3792	$59.00	$52.95	$46.95

RAINCHECK!

If your local Jaycar store has sold out of a currently advertised line we will be happy to issue you with a 'raincheck'. Conditions apply - see page 497 for details.

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

Jaycar TRADE CARD

*ABN will be required - see our website or Store Manager for further details.

Video Monitors

7" TFT LCD Widescreen Colour Monitor with IR Remote

It will deliver high resolution pictures in widescreen format and clear sound reproduction through its inbuilt speaker. It is extremely lightweight and is suitable for all sorts of mobile and fixed monitoring applications. Suitable for in-car and home entertainment, use it to watch DVD's, PS2®, XBOX®, etc. Two RCA composite video inputs and one audio input are provided for a multi source system.

This is truly a versatile monitor, it has low power consumption, wide viewing angle, and is NTSC and PAL compatible. It is equipped with On Screen Display enabling the user to easily control the colour, contrast, hue, brightness, and volume. A very slim and small infrared remote control is included. It has reverse image capability adjustable by pressing a button. Unit comes with an adjustable swivel bracket with double sided tape for adhesion on clean flat surfaces. A 4 pin mini din to 2 RCA and power cable is also supplied.

Specifications	
System	NTSC/PAL
Power input	12/24VDC
Power consumption	10W
Video input	Composite video signal 1Vpp 75 Ohm
Audio input	10dB (10k Ohm)
Operating temperature	-10˚C to + 40˚C
Screen size	7" (diagonal width)
Display method	TFT Active matrix system
Resolution	1140(H) x 234(V)
Weight	800g

NEW LOWER PRICE

TECH TIP! Ideal for trucks

*Works with most, but not all widescreen sources. Will default to modified widescreen in some cases.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3752	$99.00	$88.95	$78.95

9" In-Car LCD Colour Monitor

The perfect travelling companion, especially on long road trips. This 9" widescreen LCD delivers crisp high resolution images for your in-car viewing pleasure. Connect your source devices to entertain passengers with DVD movies or keep the kids amused with Xbox® or Playstation®. Featuring multisource inputs and reverse image function, it also doubles as a reversing camera monitor. Adjust the volume, colour, contrast, brightness and select your AV input with the front panel controls or simply use the slimline remote control. The tilting bracket gives you several in-car options, including dash and headrest mounting.

- Dual video and single audio input leads
- Front panel AV input and audio output
- Includes mounting bracket and remote control

Specifications	
System	NTSC/PAL
Screen size	9" widescreen - 4:3 & 16:9 switchable format
Resolution	800 x 480
Power input	12VDC
Power consumption	12W

NEW LOWER PRICE

1 YEAR WARRANTY

TECH TIP! Ideal for trucks

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3761	$119.00	$106.95	$94.95

9" LCD Monitor with 4 Video Inputs

Versatile 9 inch video monitor with 4 composite video inputs. Inbuilt multi-signal controller can display 1, 2, or 4 inputs simultaneously. Ideal for vehicles with multiple cameras for reversing and manoeuvring. Swivel mounting bracket can be adjusted to any angle and can also be adapted for ceiling mounting. Signal selection is controlled by push buttons on the screen, IR remote control, or control wires in the main wiring loom.

Specifications	
Display Type	9 inch screen (16:9 format)
Resolution	680 x 480 display
Video	4 x composite inputs
Audio	1 x input
Operating Volatge	12/24VDC
Overall dimensions	234(W) x 157(H) x 24(D)mm
Display dimensions	196(W) x 111(H)

NEW LOWER PRICE

1 YEAR WARRANTY

TECH TIP! Ideal for trucks

	Cat.	Qty 1+	Qty 2+	Qty 4+
9" LCD Monitor	QM-3794	$229.00	$209.00	$182.95

10" LCD with HDMI Video Input

A fantastic little HDMI monitor perfectly suited for the car, truck, retail signage, or home and office use. Features excellent colour definition, LED backlighting and VESA 75mm mounting holes. Applications range from office use where you may require a small monitor on the side displaying a spreadsheet or rendered 3D object, to an in-car entertainment system. For in-car/truck use it could be coupled with our Android HDMI stick (XC-4203) and you'll have a low power computer in your car able to use video/music apps, games, and more. Also great for technicians who may require a small monitor for testing display output from DVRs, servers, etc. Comes with a desk stand.

NEW 2013

Specifications	
Size	10.1"
Aspect ratio	16:9
Resolution	1024x600 (native), 1920x1080 (maximum)
Pixel pitch	0.21525x0.21525
Input	HDMI, DVI, VGA, composite
Scan frequency (Hz)	60-72
Response time (ms)	20
Viewing angle (degrees)	140˚x, 110˚y
Brightness (cd/m)	250

Specifications	
Contrast ratio	500:1
LCD backlight	LED
Screen rotation	Flip x , flip y
Video inputs	HDMI, DVI, VGA, composite
Audio outputs	<1.2W
Input power	12-24VDC
Mount type	VESA 75, desktop stand
Weight	1166g
Dimensions	256(L) x 163(H) x 35(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3798	$199.00	$178.95	$158.95

IN-CAR ENTERTAINMENT

In-Dash MP3 Player with Radio

RESPONSE

With high capacity USB drives and SD cards being so cheap now, this is an excellent alternative to carrying around a glove box full of CDs - instead you can listen to your favourite MP3s directly from the USB/SD card slot. Featuring PLL AM/FM tuner with 18FM/12 AM presets and MP3/WMA playback you will never miss a beat with this in-dash MP3 player. Thanks to the lack of a CD drive, the mounting depth is quite shallow making it a breeze to install in tight space locations such as a glove box.

- MP3/WMA playback
- MP3 ID3 tag display
- 4 x 20WRMS power output
- Rotary volume encoder
- Multi band EQ
- PLL tuner with 18FM/12AM presets
- 2 channels x 2V line-out

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3781	$79.00	$70.95	$62.95

In-Dash Multimedia Player with USB & Bluetooth®

RESPONSE

A solid all-round performer, this in-car entertainment system plays various popular multimedia formats and connects with external media players and file storage devices in a number of ways. Featuring the latest in file sharing with Bluetooth, front panel SD card slot, USB port and aux-in; it supports MP3, JPEG and WMA files. It also has AM/FM radio with 18 x AM and 12 x FM programmable preset stations and plays DVDs, VCDs and CDs. This highly versatile head unit has further input/output options, including NTSC/PAL video out, subwoofer out, and a mic input to make it a fully functional handsfree car kit when paired with a Bluetooth-enabled mobile phone. Complete with flip-down and detachable panel with colour LCD and slimline remote control.

- Bluetooth file sharing and handsfree mobile phone capability
- Front USB port, SD/MMC card slot and aux-in
- PLL tuner with 18 x FM and 12 x AM presets
- DVD±R/RW, CD-R/RW playback
- 4 channels x 20WRMS output (40WRMS max)
- 4-band equaliser (classic, pop, rock, flat)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3788	$199.00	$178.95	$158.95

In-Dash Marine AM/FM Radio with MP3 Player

An attractive marine radio perfect for your boat but can be used for automotive purposes. In addition to standard AM/FM radio the front panel includes USB & SD card slots which allow playback of MP3s. There's also a 3.5mm auxiliary port so you can connect an iPod®, headphones, or Smartphone for playing back music. The unit can be controlled with the infrared remote or front panel interface. For audio tinkerers, a myriad of settings are available including bass, treble, balance, and fade settings. There are also rock, pop, and classical equalisation pre-sets to suit your taste in music. Installation is straightforward, just connect via the supplied 14pin plug, all speaker cables are labelled to streamline the install. The USB, SD card and AUX sockets all come with splashproof silicone covers.

RELATED PRODUCT...
See page 251 for Marine Speakers

NEW 2013

- MP3/USB/SD Player
- Rust-resistant chassis
- ISO/DIN mountable
- Electric Detachable Panel
- UV-resistant faceplate and trim ring
- 3.5mm front panel aux input
- USB/SD front panel input
- Wireless infrared remote
- Power: 8.25WRMS - 8 Ohm x 4 / 13WRMS - 4 Ohm x 4
- Dimensions: 189(L) x 117(W) x 57(H)mm

TECH TIP!
Can be used for automotive purposes

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3815	$89.95	$80.95	$71.95

In-Car DAB+ Receiver with FM Transmitter

Add crystal clear digital radio to your car with ease. Just connect this unit to your cigarette lighter socket and then either tune in on the FM band on the car radio or use the supplied 3.5mm audio cable for direct connection. Features radio stabilisation technology to ensure good reception at high speeds as well as a USB socket with adaptors to charge Smartphones and Tablets. Also includes a bright 35mm (1.44") colour TFT display so you can browse through stations easily.

- Displays channel name and radio text
- 3.5mm AUX in
- 3.5mm Audio cable included
- Antenna cable included
- Real time auto clock
- 3.5mm Line out
- Supports up to 99 preset DAB+ stations

NEW 2013

Digital Radio
digitalradioplus.com.au

NOT AVAILABLE IN NEW ZEALAND

Specifications	
Power input	12-24VDC
USB output	5VDC 1.5A
FM Transmitting Frequency	87.5 - 108MHz
Included adaptors	USB, Micro-B, USB Mini, Nokia plug
Dimensions	190(L) x 66(W) x 60(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1902	$119.00	$106.95	$94.95

In-Car Communication

BLUETOOTH® CAR KITS

Bluetooth® Hands Free Car Kit

Avoid the risk involved with using your mobile handset whilst driving by using this simple Bluetooth hands free car kit. Easily installed by plugging in and pairing with your mobile phone, the unit allows you to accept and reject calls with the push of a button. A built-in speaker and microphone eliminates the need for any additional parts, and with power coming directly from a 12 or 24 volt lighter socket there is no additional wiring. Echo cancellation ensures a clear call and the speaker volume is adjustable using a dial on top of the unit.

Specifications	
Input voltage	9-26V DC
Bluetooth version	V2.0
Bluetooth range	10m
Dimensions	56(Dia) x 25(H)mm
Lighter Plug Length	60mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3121	$29.95	$26.90	$23.70

Bluetooth® Hands-free Car Kit with LCD

Safely dial or answer phone calls hands-free whilst driving with this user friendly visor mounted Bluetooth® car kit. The large LCD screen displays the incoming callers name or number for quick glance caller identification. Features voice operated dialling so you can make calls hands-free using the built-in highly sensitive microphone, high powered loudspeaker, and dual standby allowing two phones to connect simultaneously, which is very handy when you own two phones or share the car with another person. The built-in phone book stores up to 800 telephone numbers with the last ten incoming call numbers stored in a quick browse menu.

- DSP full duplex technology
- Noise, echo and wind suppression
- Built-in rechargeable Li-ion battery for 360 hours standby
- Supports English, French, German, Italian, Spanish and Chinese
- USB cable and 12V car charger included

Specifications	
Bluetooth version	V2.1+EDR
Bluetooth range of operation	0-10m
Hands-free talk range	0.5-2m
Input charging voltage	DC 5V (300mA)
Built-in Li-ion battery capacity	800mAh
Weight	305g
Dimensions	136(L) x 65(W) x 60(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3122	$59.95	$53.95	$47.90

FM TRANSMITTERS

12/24V MP3 FM Modulator with Remote

Unbelievable bargain price! Simply plug in to your cigarette lighter socket, this unit will play MP3 tracks directly through your car stereo through the FM band. Music can be stored on an SD/MMC card, USB memory stick or an external media player (iPod®s, MP3 players) can be plugged in via the auxiliary input. Can be powered from a 12V or 24V source, it has a backlit LCD that can be rotated for optimum viewing angle.

- Accepts SD/MMC, USB or aux input
- 12 - 24VDC operation
- Dimensions: 130(L) x 40(W) x 25(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3120	$14.95	$13.35	$11.70

In-Car Transmitter for iPhone®, iPod® & iPad® with Charger

Play music from your iPhone®, iPod® or iPad® through your car stereo while simultaneously charging the device. Simply connect the transmitter to your Apple device, select a frequency from 88.1 to 107.9MHz then tune in using your FM car radio. It also has a built-in mic for hands-free communication and a USB port built into the cigarette lighter plug for charging other popular electronic devices.

- Working voltage: 5VDC
- USB output voltage: 5VDC 800mA
- LCD display
- Built-in mic
- Apple® 30 pin connector
- Dimensions: 100(L) x 30(W) x 12(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3124	$29.95	$26.90	$23.70

FM Transmitter with Detachable MP3 Player - 2GB

This handy device allows you to detach and use the MP3 player as a conventional MP3 player and also enables you to dock it into the cigarette lighter cradle so you can and listen to your music through your car radio. Features a built-in MP3/WMA decoding chip that enables you to play from the stored TF card and built-in memory. The 30mm LCD screen displays everything from the name of your song to the transmitting frequency. Comes with a USB charging cable, slim remote and earphones.

- Supports MP3, WMA files
- Total 206 channels
- Separate power switch
- Built-in MP3 decode and stereo transmitting chip
- Built-in EQ sound modes (7 types)
- Built-in memory 2GB
- Built-in 240mA lithium battery
- Total length (including MP3 player: 230(L)mm approx

Specifications	
Operation voltage	9V-26V
Power consumption	1W
Working temperature	0-50°
S/N	>60dB
Distortion	<0.1%
Frequency response	87.5-108MHz

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3123	$29.95	$26.90	$23.70

MP3/USB FM Modulator for iPhone® & iPod®

Play your iPhone® or iPod® through the FM radio in your car. Plug into the cigarette lighter socket, then tune to the FM band to play and charge your iPod®, iPhone® or use the 3.5mm stereo cable to play any other MP3 player or auxiliary audio source. It also has a USB socket, so you can also play tunes from a flash drive. The strong clamp is adjustable to take devices from 40 - 80mm wide.

Note: iPhone® not included

Specifications	
Range	5m
Frequency range	88 - 107MHz
Dimensions	110(H) x 65(W) x 40(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3113	$39.95	$35.90	$31.90

Transmitter/Charger/Gooseneck In-car Holder

A necessary accessory to have for your iPhone 5® and iTouch 5® in your vehicle. The bracket holds the device in place and charges the device through the lightning connector. It has a built in FM transmitter that allows you to stream your conversation and music to your car's sound system for Hi-Fi reproduction. The unit connects to 12V power via the cigarette lighter socket and has a rigid gooseneck/swivel bracket to hold at the desired position.

Note: iPhone® not included

Specifications	
Range	5m
Frequency	88 - 107MHz

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3125	$49.95	$44.90	$39.90

In-Car FM Transmitter Kit with in-line Antenna Connection

A clever way to play music from your MP3 player, iPhone® or Smartphone through your car stereo with great audio quality. The system comprises of two parts; an FM modulator that fits inline with the car antenna for drift-free FM transmission, and the main unit that plugs into the car cigarette lighter socket and holds your device in the included universal holder. To operate simply connect the 3.5mm jack into the headphone socket on your device, choose from 3 FM frequencies, and tune to the frequency on your radio. To top it off there is also a USB socket to charge your device as you drive. A charging cable for iPhone® and 1m 3.5mm audio cable is included.

Specifications	
Power input	12 - 24VDC
USB output	5VDC 2A (Enough to charge an iPad®)
FM Freq	87.7MHz / 87.9MHz / 88.1MHz
Aux input	3.5mm jack
Interconnecting cable length	4m

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-3104	$59.95	$53.95	$47.90

IN-CAR ACCESSORIES

Smartphone Audio Lead for Car Radios

NEW 2013

Connect it from your Smartphone to your car's 3.5mm Aux input socket to listen to music, then when you need to answer a call press the switch on the microphone to pause the music and switch to talk mode. Zero setup required, simply plug in. Features a highly sensitive microphone on a slim 3.5mm stereo audio lead.

- Slim 3.5mm connectors
- Length: 120mm

Note: iPhone® not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2097	$14.95	$13.35	$11.70

CASSETTE ADAPTORS

CD/Cassette Adaptor

Play your portable CD or Mini Disc player through your car stereo cassette system.

- No power or batteries required.
- Supplied with 1.1 metre lead & 3.5mm stereo plug.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-1760	$16.95	$14.95	$13.35

MP3 Player/Cassette Adaptor

If your car only has a cassette deck and your budget doesn't extend to a new CD player, you can still play your favourite MP3 tracks through the car stereo. You just plug in your media card with your music files, load it into the cassette deck and control the music with the remote unit - it provides track selection, volume control and a choice of five EQ settings. You can also plug in your headphones and use it as a stand-alone MP3 player or connect to your PC using the included USB cable.

- Excellent sound quality
- Built-in 3.7V 250mAh battery
- Supports SD, mini SD and MMC cards
- Remote cable 450mm long
- USB cable and cigarette lighter adaptor
- 8 hours playing time from one charge

	Cat.	Qty 1+
	AR-1764	$19.95

GPS/PHONE BRACKETS

Gooseneck Windscreen or Cigarette Lighter Universal Mount

Mounting your GPS/PDA/Mobile phone where it can obstruct your vision is very dangerous. With this handy dooberlacky, you can either plug into your cigarette lighter socket or mount it on the windscreen glass. The gooseneck allows it to be mounted where it won't obstruct your vision. The bracket adjusts to fit your device and can be rotated through 180° to accommodate wider devices, such as larger GPS units. The cigarette lighter mount has a piggyback socket so you can use the outlet to power your device.

Specifications	
Base diameter	67mm
Gooseneck	180mm long

Note: Mobile phone not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9002	$24.95	$22.35	$19.70

BUY IT ON THE WEB...

Shop for all these Jaycar Electronics products online at our website - and check out our latest products and special offers!

GPS SUNSHADES

GPS Sunshades

An LCD on a GPS can become very hard to see in bright sunlight. Solve the problem easily by giving your GPS a sunhat. Simply clip to the top of your GPS unit. Different types to fit popular in-car GPS models: Garmin Nuvi, TomTom Go, Magellan Maestro, Navman etc.

- Universal GPS Sunshade 3.5" Cat HS-9005
- GPS Sunshade for TomTom 4.3" Cat HS-9006
- GPS Sunshade for Garmin 4.3" Cat HS-9007

NEW LOWER PRICE

Note: GPS not included

	Cat.	Qty 1+
3.5" Universal GPS Sunshade	HS-9005	$7.95
4.3" Sunshade for TomTom	HS-9006	$7.95
4.3" Sunshade for Garmin	HS-9007	$7.95

GPS & PHONE CHARGER

Universal GPS Charger with Dual USB Output

This very handy universal GPS charger not only works as a replacement for an original GPS charger, but having two USB outputs and higher output power offers a bonus - allowing you to charge both your GPS and your mobile phone (or other USB device) at the same time!

With 2.1A available from each USB port, it has enough power for even the latest and greatest big screen GPS models, whilst still having enough power left over to charge a second USB device. Supplied with 1.2m USB charging lead and 6 replaceable connectors to suit most GPS models.

Specifications	
Suitable for	TomTom, TomTom XL, Navman, Garmin, Magellan, Navigon, Falk, Mio, etc
Input	12-24VDC
Output	5VDC, 2.1A max per USB port (4.2A total)
Dimensions	100(L) x 42(W) x 25(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	MP-3676	$29.95	$26.90	$23.70

In-Car Quick Charger for iPhone 5®, iPad® etc.

NEW 2013

A handy in-car charger suitable for charging the latest Apple® brand gadgets such as iPhone 5® and iPad®, which have the new lightning connector socket. With 2.1A of charge current available, this in-car charger is capable of charging your Apple® device at full speed, ensuring you get as much charge as possible on your commute.

- Input: 12-24VDC
- Output: 5VDC 2.1A
- Lead length: 900mm with lightning connector

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3668	$14.95	$13.35	$11.70

In-Car Quick Charger for Smartphones and Tablets (Micro-B)

NEW 2013

More and more non-Apple® brand Smartphones and Tablets are using the USB Micro-B socket for charging, and are also needing more current to charge at full speed. With 2.1A of charge current available, this in-car charger is your buddy in the glove box, ensuring you get a full charge into your Smartphone or Tablet on the drive to work. A saviour when you forget to charge overnight.

- Input: 12-24VDC
- Output: 5VDC 2.1A
- Lead length: 900mm with USB Micro-B connector

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3669	$14.95	$13.35	$11.70

In-Car Sound

RESPONSE CAR SPEAKERS

Low cost doesn't mean low quality. Coax speakers are an ideal replacement for the standard equipment stereo speakers you get in the average car.

All are equipped with titanium coated fibre woofers and silk dome tweeters for smooth high frequency response.

Response 4" Coax 2 Way Car Speakers

Specifications	
Power handling	15WRMS
Nominal impedance	4 ohms
Frequency response	90Hz - 18kHz
Sensitivity	83dB SPL @1W, 1m
Qms	3.2
Qes	1.85
Qts	1.18
Vas	1.45 litres
Fo	122Hz

A	B	C	D	Cat.	Qty 1+	Qty 4+	Qty 10+
102	115	93	42	CS-2310	$24.95	$22.35	$19.70

Response 5" Coax 2 Way Car Speakers

Specifications	
Power handling	17WRMS
Nominal impedance	4 ohms
Frequency response	70Hz - 18kHz
Sensitivity	85dB SPL @1W, 1m
Qms	4.28
Qes	1.88
Qts	1.31
Vas	3.31 litres
Fo	106Hz

A	B	C	D	Cat.	Qty 1+	Qty 4+	Qty 10+
130	138	115	44	CS-2312	$29.95	$26.90	$23.70

Response 6" Coax 2 Way Car Speakers

Specifications	
Power handling	22WRMS
Nominal impedance	4 ohms
Frequency response	60Hz - 20kHz
Sensitivity	88dB SPL @1W, 1m
Qms	4.88
Qes	1.5
Qts	1.15
Vas	10.18 litres
Fo	75Hz

A	B	C	D	Cat.	Qty 1+	Qty 4+	Qty 10+
166	158	142	52	CS-2314	$34.95	$31.45	$27.90

Response 6 x 9" Coax 2 Way Car Speakers

Specifications	
Power handling	27WRMS
Nominal impedance	4 ohms
Frequency response	55Hz - 18kHz
Sensitivity	86dB SPL @1W, 1m
Qms	4.76
Qes	1.57
Qts	1.18
Vas	17.3 litres
Fs	61Hz

A	B	C	D	Cat.	Qty 1+	Qty 4+	Qty 10+
236 x 165	205	218 x 148	75	CS-2316	$44.95	$40.45	$35.90

SPEAKER CABLE

RELATED PRODUCT...

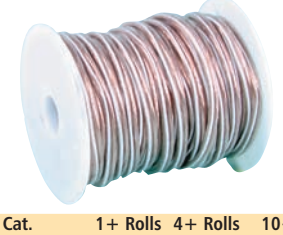
See page 116 for DC Power Cable

Extra Heavy Duty Figure 8 - 30m

Cable is 2 x 79/0.2mm

ROLL LENGTH 30 METRES.

Cross Section



Cat.	1+ Rolls	4+ Rolls	10+ Rolls
WB-1713	$64.95	$58.50	$52.50

Car Panel Removing Tools

Anyone who's installed a pair of speakers or a head unit knows what a pain it is getting door panels and centre consoles off without scratching them. Use the right tool for the job - this set of pry bars will remove all the panels and even those upholstery clips. They're made of nylon/fibreglass composite and are extremely tough so they're guaranteed for 25 years. Ideal for DIY and pro installers.

The set contains:
210 x 20mm fork/lever
210 x 30mm hook/fork
175 x 20mm flat lever/hook lever

Cat.	Qty 1+	Qty 3+	Qty 6+
TH-2338	$24.95	$22.35	$19.70

This colour pricebar denotes a Clearance item - check for specials.

RESPONSE PRECISION KEVLAR COAXIAL CAR SPEAKERS

All models are now paired with Soft Dome Tweeters!

Back by popular demand! These are our ever popular Response Precision Kevlar Coaxial Speakers that has won many awards and magazine recommendations in the past, only with a new look. The Kevlar speaker cone is now supplied in Black but it still retain its outstanding performance that we are all accustomed to. The tweeters are still the original soft dome tweeter that provides clean, crisp sounds and maintains a natural and smooth balanced sound; nestled in an adjustable bracket for optimal sound trajectory. Virtually unchanged in design and performance, we have put our efforts in changing one thing; the price. Now at a more competitive price points; these coaxial speakers are great value for money topped with award winning performance.

4" Kevlar/ Dome Tweeter 2 Way Coaxial Speakers

Specifications	
Power handling	40WRMS
Nominal impedance	4 ohms
Frequency response	70Hz - 7kHz
Sensitivity	88.5dB SPL @ 2.83V, 1m
Qms	10.25
Qes	1.12
Qts	1.01
Vas	1.7 litres
Fs	115Hz

A	B	C	Cat.	Qty 1+	Qty 4+	Qty 10+
102	90	47	CS-2400	$69.95	$62.95	$55.95

5" Kevlar/ Dome Tweeter 2 Way Coaxial Speakers

Specifications:	
Power handling	50WRMS
Nominal impedance	4 ohms
Frequency response	80Hz-20kHz
Sensitivity	89dB SPL @ 1W, 1m
Re	3.3 ohms
Qms	6.91
Qes	0.76
Qts	0.68
Vas	5.27 litres
Fs	87.6Hz

A	B	C(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
130	118	64	CS-2401	$79.95	$71.95	$63.95

6.5" Kevlar/ Dome Tweeter 2 Way Coaxial Speakers

Specifications:	
Power handling	75WRMS
Nominal impedance	4 ohms
Frequency response	65Hz-20kHz
Sensitivity	89dB SPL @ 1W, 1m
Re	3.3 ohms
Qms	5.90
Qes	1.23
Qts	1.02
Vas	5.94 litres
Fs	98Hz

A	B	C(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
178	157	135	CS-2402	$89.95	$80.95	$71.95

6 x 9" Kevlar/ Dome Tweeter 2 Way Coaxial Speakers

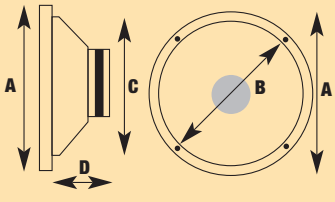
Specifications:	
Power handling	75WRMS
Nominal impedance	4 ohms
Frequency response	55Hz-20kHz
Sensitivity	90dB SPL @ 1W, 1m
Re	3.4 ohms
Qms	7.99
Qes	0.79
Qts	0.71
Vas	31.1 litres
Fs	53.2Hz

A	B	C(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
235x163	220x150	90	CS-2403	$119.00	$106.95	$94.95

NOTES ABOUT SPEAKER SPECIFICATIONS

- **In an effort to assist customers choices between speakers, our entire speaker range have been assessed and measured under the same test conditions. Therefore making the resulting data in this catalogue comparable.**
- **All drivers have been measured for Thiele and Small parameters after a period of "Breaking In" for a minimum of 15 hours, and not tested straight off the shelf. This ensures a more long term and realistic result.**

SPEAKER DIMENSIONS



A = From one side to the other

B = Mounting holes - diagonal

C = Cut out in millimetres

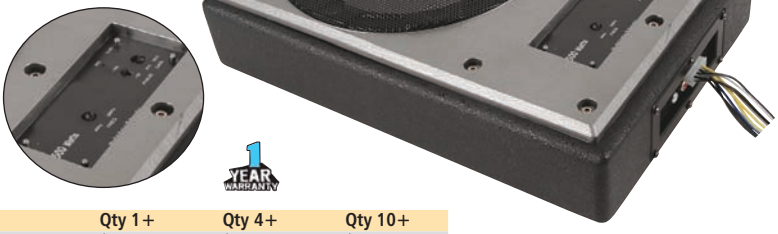
D = Depth

In-Car Sound

ACTIVE SUBWOOFERS

8" Under Seat Active Subwoofer

Add some bottom end to your car audio, even if you don't have room for a sub. MOSFET output stage for low distortion and noise. The compact size means it will fit under a seat and is robust enough to take some knocks. Ideal for utes, convertibles and trucks.



Specifications	
Power output	55WRMS
Frequency response	60 - 480Hz
S/N ratio	70dB
THD	0.06%
Input sensitivity Line level	200mV
Speaker level	800mV
Low pass filter	40 - 280Hz @ 12dB/octave
Variable gain	0 - 18dB @ 50Hz
Phase shift	–180 - 180
Dimensions	360(L) x 250(W) x 80(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2286	$129.00	$115.95	$102.95

Economy Active 12" Subwoofer

Unbelievable value! This 12" Subwoofer in a sealed enclosure has a built-in amplifier to match. Despite its economical price the unit produces a whopping 85WRMS of astounding bass. Equipped with line level and high level inputs, it also has built-in fuse protection and wired remote level control. True bang for your buck, we are confident you will not find another boombox with all these features and performance for the asking price.

Specifications	
Bass boost	12dB
Gain	18dB
Power output	85WRMS (150WRMS Max)
Dimensions	425(W) x 355(H) x 360(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2269	$99.00	$88.95	$78.95

CAR AMPLIFIERS

With improved heat sinks and upgraded low-profile chassis design, each model delivers surprising grunt and performance in a sleek and compact package that fits neatly under your car seat. All include gold plated power and speaker terminals and variable low pass filters. Plus our class AB amps come with variable high pass filters and pass through RCAs; while our class D subwoofer amps feature variable subsonic filter, phase shift and master/slave operation.

All backed by a 12 month warranty - you won't find another range of car amps on the market with better watts-per-dollar return and stacked with these features as standard.

Precision Response 2 x 80WRMS Class AB Amplifier

An affordable 2-channel class AB amplifier. Both channels offer fully variable high and low pass filters, bass boost and pass through RCA pre-outs allowing you to link to additional amplifiers without the additional cost of RCA splitters.

• This is a great value first upgrade amplifier.

Specifications	
Power/channel @ 4 Ohm 14.4V	80WRMS x 2
Power/channel @ 2 Ohm 14.4V	125WRMS x 2
Power/channel @ 4 Ohm 14.4V bridged	255WRMS x 1
Signal/noise ratio	>90dB
Input sensitivity	150mV to 6V
Low pass filter	50 - 500Hz @ 12dB/octave
High pass filter	50 - 500Hz @ 12dB/octave
Bass boost	0 - 18dB @ 45Hz
Pass thru RCA	Yes
Dimensions	266(L) x 235(W) x 58(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	AA-0450	$119.00	$106.95	$94.95

Precision Response 2 x 150WRMS Class AB Amplifier

Even more power output with a massive 500WRMS x 1 when bridged into a 4Ohm load making this ideal for powering two of the Vifa dual 4Ohm subwoofers in series/parallel wiring. Variable bass EQ of up to 18dB is included, while the fully variable high and low pass filters make this amp equally useful for powering subwoofers or full range speaker systems.

• At this price, this is easily one of the best value 2-channel class AB amplifiers on the market today.

Specifications	
Power/channel @ 4 Ohm 14.4V	150WRMS x 2
Power/channel @ 2 Ohm 14.4V	240WRMS x 2
Power/channel @ 4 Ohm 14.4V bridged	480WRMS x 1
Signal/noise ratio	>90dB
Input sensitivity	150mV to 6V
Low pass filter	50 - 500Hz @ 12dB/octave
High pass filter	50 - 500Hz @ 12dB/octave
Bass boost	0 - 18dB @ 45Hz
Pass thru RCA	Yes
Dimensions	376(L) x 235(W) x 58(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	AA-0452	$169.00	$151.95	$134.95

CAR AMPLIFIERS (CONTINUED)

Response Precision 4 x 100WRMS Class AB Amplifier

A whole lot of sophisticated grunt, this ultra-powerful 4-channel amplifier delivers over 100WRMS power per channel or 340WRMS in bridged mode at 4Ohm. An ideal one amplifier system for powering both full range speakers and a subwoofer. There's also fully variable high and low pass filters between 50Hz and 500Hz, with pass thru RCA outputs to link this amp to an additional 2 x 150WRMS amp AA-0452 for driving your subwoofers.

Specifications	
Power/channel @ 4 Ohm 14.4V	110WRMS x 4
Power/channel @ 2 Ohm 14.4V	175WRMS x 4
Power/channel @ 4 Ohm 14.4V bridged	350WRMS x 2
Signal/noise ratio	>90dB
Input sensitivity	150mV to 6V
Low pass filter	50 - 500Hz @ 12dB/octave
High pass filter	50 - 500Hz @ 12dB/octave
Pass thru RCA	Yes
Dimensions	436(L) x 235(W) x 58(D)mm

RESPONSE PRECISION

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 5+
AA-0453	$229.00	$209.00	$182.95

Response Precision 1000WRMS Linkable Class D Subwoofer Amplifier

Monstrous, eardrum-perforating power and high efficiency in an extremely compact chassis. It has dual MOSFET power supplies and is stable driving 1 or 2Ohm loads. In addition, you get adjustable phase shift, bass boost, variable low pass & subsonic filters and master/slave operation.

- Speaker short, over current, thermal and DC protection
- 4 AWG power terminals

Specifications	
Power/channel @ 1 Ohm mono 14.4V	1000WRMS
Power/channel @ 2 Ohm mono 14.4V	600WRMS
Power/channel @ 4 Ohm mono 14.4V	300WRMS
Power/channel @ 2 Ohm linkable, dual mono 14.4V	1800WRMS
Signal/noise ratio	>90dB
Input sensitivity	150mV to 6V
Low pass filter	30 - 300Hz @ 24dB/octave
Subsonic filter	10-60Hz @ 24dB/octave
Bass boost	0 - 12dB @ 45Hz
Phase shift	0 -180°
Pass thru RCA	No
Dimensions	306(L) x 178(W) x 58(D)mm

RESPONSE PRECISION

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 5+
AA-0455	$299.00	$269.00	$239.00

CAR AUDIO LEAD & WIRING KITS

Twisted Pair RCA Stereo Audio Cables

An automotive cabin can induce a lot of RF and electromagnetic interference into your audio system through the RCA leads. With the use of our Response flexible double shielded twisted pair RCA cables, unwanted noise will be drastically reduced providing you with crystal clear and crisp signals.

- Tinned OFC
- Chemical and moisture resistant insulation
- Split center pin connectors
- Transparent jacket design
- Platinum-plated ends

2 lengths available.

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5 metre	WA-1071	$9.95	$8.75	$7.75
5.0 metre	WA-1077	$29.95	$26.90	$23.70

Car Amplifier Wiring Kits

Complete wiring kits for installing an amplifier into your vehicle. Everything you need, down to the cable ties and screws. Save $$ on the individual parts.

8G WIRING KIT Cat AA-0442

- 6m x 8G power cables
- 9m x 16G speaker wire
- 5.2m stereo RCA interconnect
- 5.2m 18G remote wire
- Gold plated fuse holder
- 40A fuse
- Loom tubing, gold plated crimp connectors, grommets, cable ties & screws.

4G WIRING KIT Cat AA-0444

- 5.2m x 4G power cables
- 9m x 16G speaker wire
- 5.2m stereo RCA interconnect
- 5.2m 18G remote wire
- Gold plated fuse holder
- Gold plated battery terminal
- 40A fuse
- Loom tubing, gold plated crimp connectors, grommets, cable ties & screws.

	Cat.	Qty 1+	Qty 4+	Qty 10+
8G Wiring Kit	AA-0442	$59.95	$53.95	$47.90
4G Wiring Kit	AA-0444	$99.00	$88.95	$78.95

SET TOP BOX FOR CARS

12VDC HD Digital Set Top Box

Great for use on the road, this high definition set top box will pickup all the digital channels on offer in your locale. You can also plug in a USB drive and record TV in MPEG2 format to watch at a later date.

- Output: HDMI, Composite, RF
- USB port for recording and playback
- Cigarette lighter cable included
- Suitable antenna LT-3143 (available separately)
- Dimensions:154(W) x 117(D) x 40(H)mm

TECH TIP!

1080i

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4921	$69.95	$62.95	$55.95

In-Car Acoustic Control

ACOUSTIC SOUND ABSORBING DEADENING MATERIALS

Ideal for car sound installations. One of the most hostile environments for a loudspeaker is in the door of a car. It is made out of flexible sheet steel which, when it is not vibrating & absorbing energy by rattling or buzzing, is reflecting energy all over the place! To produce Hi-Fi sound in a car you not only need to control the acoustics of the car environment. As any professional will tell you, it's the installation which makes for sound quality more than any other factor.

Heavy Duty Sound Barrier Damping Material

This is basically a flexible plastic-like material that forms an attenuating / reflecting sound barrier. The product is made of 25% PVC loaded and spread evenly with barium mineral powder which takes up the other 75% (by weight) of the product. The barium mineral is very heavy and makes the vinyl heavy and impenetrable to sound waves. It's sort of like if lead was plastic! It weighs 4kgs per square metre. It is ideal for any surface that needs to be 'deadened' e.g. car door or floor panels. It completely damps (ie prevents) any panel resonating from high power speakers. It is also amazing for attenuating road noise from steel car floors, etc. It can be cut with a hobby knife or good scissors etc. The material is held in place with spray or gel contact cement. One sheet is generally enough for the average car door. This product is superior to the AX-3680 previously sold.

- Supplied in a polyethylene bag.

Specifications	
Sheet:	700 x 330 x 2.3mm thick (approx)
Sound transmission class:	26
Humidity:	Unaffected
Stability:	Indefinite

Specifications - Chemical Resistance	
Petrol/Diesel:	Moderate
Acetone:	Good
10% HCl:	Good
10% NaOH:	Poor

Specifications - Mechanical Properties	
Density:	1.74 g/cm^3
Tensile:	3000N/50mm
Elongation:	<0.2%
Working Temp:	0°C to 95°C

	Cat.	Qty 1+	Qty 4+	Qty 10+
Per Sheet	AX-3680	$9.95	$8.75	$7.75

Sound Absorption Mat for Equipment

The noise of modern equipment can really annoy end users. To solve this with your equipment, we have sourced this high quality sound absorption material which is quick and easy to install.

The honeycomb material is chosen specifically due to its ability to reduce fan noise, vibrations, compressors and motors. Cooling fans in equipment is a particular annoyance to users and this material is perfect for reducing sound levels! With it's self adhesive backing, just cut to size and stick on the inside of your equipment and installation is completed. No mess or fuss. Made to UL94-VO flammability classification.

NEW LOWER PRICE

- Size: 140 x 180mm, 2 sheets per pack.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pack of 2	AX-3660	$14.95	$13.35	$11.70

TECH TIP

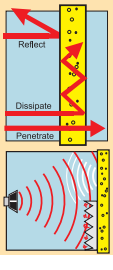
Technical Data on Our Acoustic Products

Thickness & Absorbtion Performance

The basic rule of thumb here is the thicker the acoustic material the better it absorbs over a wide range of noise - especially at lower frequencies.

When sound hits any surface, it takes three paths, some goes through the surface, some dissipates within it and some reflects back off the surface. Electus Acoustic Products work primarily on attenuating reflected noise, but also helps retain dissipated noise.

With its anechoic wedge surface, Electus Acoustic Foam deflects and dissipates sound energy better than flat-surface or standard convulted materials.



Self-Adhesive Sound Absorbing Foam

The perfect ultra light weight insulator to use in conjunction with AX-3687. This durable crush and tear-resistant material has the highest heat blocking properties available in a single layer synthetic foam-type material. Not affected by oil and does not absorb water. It provides acoustic isolation and excellent thermal insulation for roof, firewall, floor, quarter panels, doors and even as an under bonnet liner. Adhesive backed for easy installation.

- Size: 660 x 330mm / Thickness: 5mm
- Temperature range: -15 - 100°C

	Cat.	Qty 1+	Qty 4+	Qty 10+
Sheet	AX-3662	$14.95	$13.35	$11.70

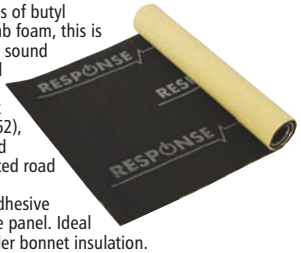
Butyl Based Sound Deadening Material

Give your vibrating buzz-box a luxury car ride with this butyl-based, foil backed sound deadening material. By adding weight to the metal panels of your car, such as door skins, boot lids, quarter panels, etc, you can stop nasty vibrations, reduce road noise, and give your doors and boot a nice solid "thud" when they shut. Each sheet is self-adhesive, and can be easily moulded, cut and stuck onto virtually any metal surface of your vehicle's body, giving you a pleasant, quiet and comfortable ride. Combine with our AX-3662 Sound Absorbing foam to add thermal insulation and eliminate low frequency humming from big exhaust systems for an even more comfortable vehicle interior.

- Size: 900 x 330mm / Thickness: 1.5mm
- Temperature range: -10 - 110°C

	Cat.	Qty 1+	Qty 4+	Qty 10+
Sheet	AX-3687	$29.95	$26.90	$23.70

Combination Butyl/Foam Super Sound Deadener



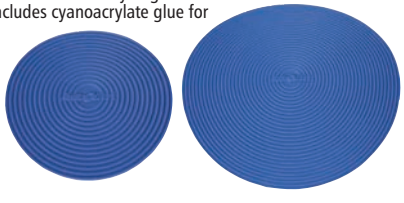
Combining both the sound deadening properties of butyl material, and insulating properties of honeycomb foam, this is an easy single application solution for complete sound deadening and isolation that also offers thermal insulation. Consisting of a layer of our AX-3687 Butyl Based sound deadener and a 3.0mm thick layer of honeycomb foam (similar to our AX-3662), lining the cabin of your vehicle with these sound deadening sheets will give you drastically reduced road noise, less panel vibration and a cooler cabin temperature. Application is easy with the self adhesive backing and ability to mould to the shape of the panel. Ideal for door skins, head linings, door cards and under bonnet insulation.

- Size: 660 x 330mm / Thickness: 4.5mm (1.5mm butyl, 3.0mm foam)
- Temperature range: -10 - 100°C

	Cat.	Qty 1+	Qty 4+	Qty 10+
Sheet	AX-3689	$29.95	$26.90	$23.70

Sound Dampening Pads

Mainly designed for car audio, but could be used in any speaker application. These pads are installed inside the door skins opposite the back of the speaker drivers. They absorb standing waves and resonances so you get maximum performance. Each pack includes cyanoacrylate glue for installation.



DAMPENING PAD 7"
Suitable for 5 - 7" drivers
Cat. AX-3665 Pair

DAMPENING PAD 12"
Suitable for subs 10 - 15"
Cat. AX-3666 Single

	Cat.	Qty 1+
7" Pad - Pair	AX-3665	$19.95
12" Pad - Single	AX-3666	$19.95

CAR AUDIO ACCESSORIES

Line Level Control (Attenuator)

This unit when fitted in a signal line allows you to adjust downwards excessive signal levels. You may have, for example a source from a CD/MP3 player and a tuner. Often one source is too loud (at line level) to the other.

- Stereo
- RCA line sockets in/out
- Measures 60(L) x 55(W) x 37(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-3078	$9.95	$8.75	$7.75

Ground Loop Isolator (Stereo) 3.5mm

Used to eliminate ground loop problems in audio installations. The unit has a 3.5mm stereo sockets on both ends. Suitable for use with laptops, mp3 players, iPods® etc. Note: Units AA-3074/78/84 & 86 can be fastened to any surface, fitting etc by simple cable clamps.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-3086	$9.95	$8.75	$7.75

Ground Loop Isolator (Stereo) RCA

Used to eliminate ground loop problems (usually manifested as a low hum) in audio connections. Earthing brown ground wires sometimes helps even more.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-3084	$9.95	$8.75	$7.75

Speaker (High Level) to Line Level Converter

Converts high level (high power) speaker signals back down to low level (i.e. line or <1volt signals). You can then safely use those signals as line inputs to amps without potential damage to amps or other speakers. Features variable attenuators to reduce signal up to 6 times.

- RCA socket out (stereo)
- External dimensions: 90(L) x 35(H) x 57(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0482	$14.95	$13.35	$11.70

CAR NOISE FILTERS

Car noise filters or hot line filters are used to reduce noise and interference entering your car stereo through the power lead. The car alternator is one of the most common sources of problems, and these essential devices can help to reduce this.

10A DC Noise Filter (Improved)

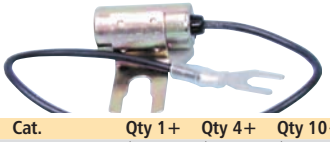
This unit replaces models that have not changed for over 15 years. The filter itself arrests any noise on the DC power supply to car stereos, CBs etc better than ever. Most importantly it enables the installer to mount the unit without drilling mounting holes. You can secure this unit with either short or long cable ties. It will also "saddle" on a wiring loom if necessary. Has 10A rated + & - DC leads & separate earth lead which should be terminated to chassis.

- Measures 90(L) x 60(W) x 33(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
10A	AA-3074	$14.95	$13.35	$11.70

Car Radio Suppressor

Traditional condenser type.



	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-3060	$3.95	$3.45	$3.15

KEY FOBS / CONTROLLERS

Key Fob Learning Remote 250 - 450MHz

A wider frequency range that includes some automatic garage door openers. Will learn up to 4 different codes and make your life a little easier by letting you control all your alarms with just one fob. A typical situation could be using the same remote for your car, your partner's car and the automatic garage door with a spare button for the house alarm when you get it. Frequency: 250MHz to 450MHz.

- Not suitable for code hopping alarms

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-8992	$45.00	$40.45	$35.95

Single Channel Keyfob Remote

Multi-purpose remote control keyfob for garage doors, lights auto gates etc. It operates in the 27MHz band on an FM signal. The built-in microcontroller uses the latest technology allowing for easy setup and installation while providing maximum security and reliability.

- Battery status LED
- Up to 200m range

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LR-8847	$49.95	$44.90	$39.90

One Channel Hand Controller/Transmitter

For over 15 years now, one brand of remote control has dominated the Australian & New Zealand markets for remote controls for garage doors, motorised gates, lighting, alarms etc. This unit, called the FMT 101, 102 or 103, is a 27MHz crystal controlled NBFM (Narrow band frequency modulated) device. It is coded with a 12-way DIP switch. There are over a million in service in Australasia. They are very reliable but they do wear out, drown, go walkabout or simply get lost.We now stock the most popular single channel unit. This will save ordering one through the garage door people who charge a fortune for replacements. This is the latest version of the most common operating transmitter in use in Australia/New Zealand today. It operates (always has) on 27.145MHz & requires a 216-type 9V cell. An alkaline battery is recommended but is not included. The controller is custom coded via a DIP-switch which is accessible from the battery cover.

- Measures 96(H) x 55(W) x 20(D)mm
- Weight: 72g excluding battery

TECH TIP!
Suits garage doors, motorised gates etc.

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LR-8827	$49.95	$44.90	$39.90

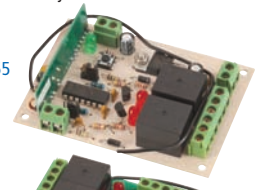
Multi Channel Remote Control Relay Boards

NEW 2013

Add remote control functions to a new project or existing installation with these handy remote control relay boards. Available with 2 or 4 channels, each output relay is controlled by a separate button on the key fob controller. Each channel can be set to momentary or latching mode allowing you to customise the setup to suit your application. Operating on the robust 433MHz band the key fob remotes work over distances up to 40m and feature rolling code transmitting for added security.

- Selectable momentary or latching mode for each channel
- Transmission frequency: 433MHz
- Transmission range: 40m max
- Operating Voltage: 12VDC
- Relay contact rating: 28VDC 10A max / 250VAC 5A max

LR-8855



2 CHANNEL REMOTE CONTROL RELAY BOARD
- Current draw: 50mA
- Board dimensions: 85(L) x 61(W) x 20(H)mm
- Remote dimensions: 51(L) x 34(W) x 13(D)mm

Cat. LR-8855

LR-8857

SPARE 2 CHANNEL KEY FOB CONTROLLER
Cat. LR-8856

4 CHANNEL REMOTE CONTROL RELAY BOARD
- Current draw: 80mA
- Board dimensions: 90(L) x 73(W) x 20(H)mm
- Remote dimensions: 63(L) x 40(W) x 13(D)mm

Cat. LR-8857

LR-8856

LR-8858

SPARE 4 CHANNEL KEY FOB CONTROLLER
Cat. LR-8858

	Cat.	Qty 1+	Qty 2+	Qty 4+
2 Channel RC Relay Board	LR-8855	$34.95	$31.45	$27.90
2 Channel Keyfob	LR-8856	$14.95	$13.35	$11.70
4 Channel RC Relay Board	LR-8857	$49.95	$44.90	$39.90
4 Channel Keyfob	LR-8858	$19.95	$17.70	$15.70

CAR SAFE

Portable Aluminium Car Safe with Alloy Cable Strap

Keep your personal effects secure with this portable car safe! The clever designed locking mechanism clamps down the alloy strap across the stainless steel case and aluminium cover making this safe virtually unbreakable. Attach the included 1m alloy cable strap to your seat railing and neatly tuck it under your seat or place in the boot of your car. Perfect for keeping your mobile phones, cameras, wallets, keys or GPS devices protected. Great for leaving your car at the local shopping centre car park or stranded overnight in a bad neighbourhood.

RELATED PRODUCT...
Biometric Safe also available see page 355

Specifications	
Weight	1.3kg
Aluminium thickness	2mm
Stainless steel thickness	1.2mm
Dimensions	210(L) x 150(W) x 68(H)mm

Note: iPhone® and cash not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HB-5455	$24.95	$22.35	$19.70

Auto Security

CAR ALARMS

Steelmate Entry Level Car Alarm with Voice Function

An affordable car alarm that features voice feedback on alarm status and operational parameters such open doors etc.

What you get:
- Electronic black box controller
- Shock sensor, Ignition cutout relay
- Speaker siren
- Wiring looms
- Bonnet pin switch
- Car charger for the remote controls
- Extra circuits for fuel and ignition cutout
- 2 x Code hopping remote control units, one with a built in torch!

Kit includes:
- Metallic water resistant 5-button transmitters
- Dedicated boot release button
- Voice warning (ON / OFF)
- Valet mode
- Anti-hijacking, emergency call & locating
- Emergency override

Spare Remote Car Charger to suit LA-9003, LA-9008 and LA-9016 Car Alarm Remote Controls

	Cat.	Qty 1+	Qty 2+	Qty 4+
Car Alarm	LA-9003	$99.00	$88.95	$78.95
Spare Remote	LA-9004	$37.95	$33.95	$30.45
Spare Remote Car Charger	LA-9021	$9.95	$8.75	$7.75

1 YEAR WARRANTY

SHADOW 3 Point Engine Immobilising Car Alarm

AUSTRALIA / NEW ZEALAND STANDARDS APPROVED

This high quality fully featured engine immobilising car alarm is made to and has passed the latest 2001 Australian and New Zealand Standards AS/NZS 4601:1999 - Vehicle Immobilisers. Some insurance companies will offer a discount on your policy if you have a standards approved immobiliser fitted to your vehicle, and in the case of high performance or imported cars you may be required to have one fitted as a condition of your policy. Most insurers require, as a minimum, an Australian Standards approved (AS/NZS 4601:1999) Immobiliser with a minimum of two immobilising points, and some of the more specialised insurers require 3 immobilisation points. The Shadow meets and exceeds these insurers' requirements by having the required standard two internal immobilising circuits as well as a third external immobilising circuit. The Shadow is sold with the alarm components separately (LA-8975), allowing the user to save costs if they do not require the alarm functionality.

LA-8970, WHAT YOU GET:
- Black box electronic module with all of the above features, made to Australian and New Zealand Standards
- 2x 433MHz code-hopping remote control key fobs
- High security all-black wiring harness (numbered for installation purposes), including central locking output wiring
- Flashing dashboard LED
- Installation and user manuals
- Now includes relay to give third immobilisation circuit

* Purchase Cat LR-8830 for 4 door and Cat LR-8838 for 2 door to add central locking to your car.

TECH TIP!
Recognised by leading car insurers!

MORE INFO WEB

LA-8975, WHAT YOU GET:
- Multi-Tone 20 watt Battery Back-Up Siren with security key shut-off
- Shock Sensor (adjustable sensitivity settings)
- Bonnet Pin Switch (protects engine bay from tamper)
- Supplementary Installation booklet

LA-8975 Upgrade Kit

TECH TIP!
Turbo Timer Friendly Central Locking Logic!

	Cat.	Qty 1+	Qty 2+	Qty 4+
Immobiliser with 2 Remotes	LA-8970	$139.00	$124.95	$110.95
Spare Remote	LA-8972	$29.95	$26.90	$23.70
Upgrade Pack	LA-8975	$49.95	$44.90	$39.90

1 YEAR WARRANTY

TAMPER SWITCHES

Tamper (Pin) Style

Low cost spring loaded switch, simply make to frame (or earth) when pin is released i.e. by operating car or cabinet door, etc. 57mm overall, 12mm pin travel.

- Bullet connector termination

	Cat.	Qty 1+	Qty 4+	Qty 8+
Pkt 2	LE-8775	$5.95	$5.25	$4.75

Metal Tamper (Pin) Style

Especially good for car bonnets, this heavy duty pin switch is nickel plated for protection from corrosion in hostile environments. The plunger is plastic and can be cut to suit the required length/depth. Supplied with locking nuts and star washer. The bezel's mounting depth is also adjustable. Termination is via a 6.4mm spade lug.

Specifications			
Length (main body)	38mm	Including plug & lug	70mm
Shaft diameter	7.75mm	Fascia nut size	11mm
Locking nut size	12mm	Travel (max)	13.5mm.

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pkt 2	LE-8776	$7.95	$6.95	$6.25

Metal Fascia Inset Pin Switch

Inset pin switch with plated metal fascia. Suitable for many cars as a replacement door switch. The sturdy plunger can be cut to required length. Termination via right angle 6.4mm spade lug.

Specifications	
Fascia	34.5 x 16.5mm
Pin	27(L) x 8(dia)mm
Depth behind fascia	15mm (not inc lug & pin)
Overall depth	51mm
Travel (max)	8mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pkt 2	LE-8777	$7.95	$6.95	$6.25

Van Sliding Door Style

Double action sliding door switch, primarily designed for van doors and tailgates. Supplied with rubber mounting plates, screws, template stickers and installation instructions. Contacts are rated at a massive 20A @ 12V.

	Cat.	Qty 1+	Qty 2+	Qty 4+
12VDC 20A	LE-8779	$18.95	$16.95	$14.95

GPS/GSM Tracking Device for Cars, Boats and Trucks

A GSM and GPS Tracking solution to locate and track the whereabouts of your vehicle in real time via the Internet on a computer or Smartphone. The device is easy to install with only 2 - 4 wires to connect. Insert a GSM Sim card (not included) and hide the device away on a metal surface or carpet using the included hook-and-loop adhesive. It works by sending the vehicle's GPS coordinates via the GSM network to the free online tracking service, which shows the location on Google Maps. It can also SMS longitude and latitude coordinates to up to 3 mobile phones, as well as alerts when vehicle exits a pre-determined area or exceeds pre-set speed.

Other features include an engine kill function to remotely disable the petrol pump, and movement sensor to extend battery life. An SOS/Panic button is also supplied which can send an SMS to the pre-programmed mobile phones. The built-in rechargeable Li-ion battery will keep the device functioning for up to 4 days when power is disconnected, which could help you locate the vehicle should it have been stolen and abandoned.

RELATED PRODUCT...
See other Tracking Devices on pages 353 to 354

There is no installation or on-going tracking charges. You only pay for the GSM sim card and service. Supplied with wiring loom, installation and operation manual.

- Real time upload current location to website
- Turn off car engine by Internet platform or SMS for Anti-theft
- Listening sound around tracker with silence by SMS or platform.
- No platform Service charge (free tracking platform)
- SIMCOM GSM module (Quad band)
- Upload interval is 30 seconds
- Built in shock sensor to control GPS on off to extend battery life
- Shock sensor can be used as car shock & movement alarm
- Website shows history tracking
- Platform uses free Google Maps
- Send alert when vehicle exits a restricted area
- Send alert when vehicle exceeds the restricted speed
- Power supply disconnect alarm

Specifications	
GSM Frequency	850/900/1800/1900 MHz
GSM & GPS Antenna	Built-in
GPS Channels	32
Locate Accuracy	5-10m
GPS Start Time	1sec (Hot start), 36sec (Cold start)
Standby current	1 - 2mA
Tracking current	35mA
Operating voltage	12 - 32VDC
Charge voltage	5V
Normal operating temperature	-20 to +55˚C
Restricted operating temperature	-35 to +70˚C
Battery	800mAh Li-ion
Unit dimensions	68(L) x 48(W) x 20(D)mm

Vehicle shown using online tracking system

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-9011	$149.00	$133.95	$118.95

Steelmate Paging Car Alarm with Coded Disarm & Rechargeable Remotes

It is an unfortunate fact that many car thefts these days involve the thief obtaining the keys to the vehicle; this system has been designed to minimise that risk by incorporating a coded disarm feature. When enabled, it will allow the owner to select a 1 - 5 digit pin code that is entered via the remote control and is required to disarm the system. Like our previous systems, this unit also includes two way paging with rechargeable remote controls. The alarm includes long range back-lit LCD paging remote control with integrated rechargeable lithium-ion batteries inside, vibrating motors for when the alarm is triggered and an alarm clock!

A 12V cigarette plug charger is provided to keep your remotes topped up while on the go. The alarm system also utilises FSK technology and will relay the status of your vehicle to the key fob of up to 3 kilometres away (direct line of sight). An adjustable 2 - stage shock sensor and microwave sensor siren are supplied with the system to ensure maximum protection of your valuable assets. The included battery back up siren will give continuous sound output even if the wires are tampered or cut off and can only be turned off with the security keys (supplied).

Specifications	
Voltage	12V ± 3V
Standby current	5mA
Frequency	433.92 MHz

Main Features:

- Coded disarm function keeps your vehicle secure even if thieves have the keys.
- Metallic water resistant LCD transmitters with lithium battery
- FSK technology, range up to 3000m
- Valet mode
- Out of operating range warning
- Separate trunk release button
- Comfort closure
- Active arming & passive arming selectable
- Clock setting & alarm setting with sound & vibration in transmitters
- Dome light delay arming

	Cat.	Qty 1+	Qty 2+	Qty 4+
Car Alarm	LA-9016	$249.00	$225.00	$198.95
Spare Remote	LA-9017	$79.00	$70.95	$62.95
Spare Remote Car Charger	LA-9021	$9.95	$8.75	$7.75

ALARM STICKERS

Large Alarm Sticker

For trucks, caravans, houses, offices and factories. Where a larger and more prominent deterrent sticker is required.

- Sticks to outside of window
- Measures: 120 x 80mm

RELATED PRODUCT...
For other Car & General Stickers see page 349

	Cat.	Qty 1+	Qty 4+	Qty 8+
Each	LA-5102	$2.95	$2.60	$2.30

SIRENS

Blue 12V Siren/Strobe

A combined siren and LED strobe for alarm systems. It has 120dB output with low power consumption.

- Output: 120dB
- Operating voltage: 12VDC
- Dimensions: 120(L) x 72(W) x 42(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5306	$14.95	$13.35	$11.70

SIRENS (CONTINUED)

Electronic Siren

Small sized siren. It's much easier to mount a small siren in a cramped engine bay!

Specifications	
Operating voltage	12V DC
Sound output	125dB.
Power rating	20 watts
Current draw	1.3 Amp.
Size	67(L) x 59(W) x 70(H)mm including brackets.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-8908	$14.95	$13.35	$11.70

Six-Tone Car Alarm Siren with Back-Up Battery

This compact siren has a rechargeable back-up battery pack mounted inside the unit, so if the wires are cut by a thief, the siren will sound and the only way to disable the unit is to turn it off with a key. Internal batteries are kept on trickle charge so they are always fully charged.

- Supplied with 2 keys.

Specifications	
Power	20W
Voltage	12VDC
Impedance	10 ohm
Output	118dB.
Size	100(L) x 61(W) x 57(D)mm including brackets.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-8912	$19.95	$17.70	$15.70

12V Siren with 10 Sounds & Microphone

NEW 2013

Perfect for sports carnivals, school fairs, kids parties, or to add a bit of flair to your car horn. This siren is 12VDC powered and features 5 animal sounds (cow, dog, horse, cat, rooster) and 5 different siren tones. It also comes with a microphone so doubles as a powerful PA system. Wire up to your car battery (or to a 12VDC power supply) and away you go. Includes speaker, control unit, and microphone.

- Controller dimensions: 135(L) x 117(W) x 38(H)mm
- Speaker dimensions: 115(L) x 97(Dia.)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5262	$44.95	$40.45	$35.90

STROBES

"Strobe" LED with Magnetic Base

The blue-light disco is back! This portable 'police' strobe light can be placed on any iron/steel surface and it will stay there - put them on the fridge or filing cabinet, hang them from the ceiling and you've got yourself an instant disco. Also great for attracting attention to sale items in a shopfront window. Battery operated (3 x AAA), with a socket for adaptor use (requires a 4.5VDC 200mA adaptor - not included). Available in red, blue or amber.

- Not a Xenon type strobe

	Cat.	Qty 1+	Qty 2+	Qty 4+
Red	SL-3325	$19.95	$17.70	$15.70
Blue	SL-3327	$19.95	$17.70	$15.70
Amber	SL-3329	$19.95	$17.70	$15.70

Waterproof LED Strobe Lights

LED strobes for security, alarm or emergency use. Low current consumption units are fully sealed and waterproof; suitable for outdoor alarm applications. Mounts with 2 x 5mm bolts.

- 12VDC operation.
- Measures: 70(Dia) x 45(H)mm

1 YEAR WARRANTY

Colour	Cat.	Qty 1+	Qty 4+	Qty 8+
Blue	LA-5326	$19.95	$17.70	$15.70
Red	LA-5327	$19.95	$17.70	$15.70
Amber	LA-5328	$19.95	$17.70	$15.70

12VDC LED Strobe Light with Magnetic Base for Cars

NEW 2013

Designed to be mounted on to the roof for maximum visibility. Moulded curly cord with cigarette plug for power.

Note: For off-road use only.

- 64 super bright, high intensity LEDs
- Cigarette lighter plug for power
- Heavy duty magnetic base for secure mount

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	ST-3295	$29.95	$26.90	$23.70

36 LED Signal Strobe Light with Magnetic Base

NEW 2013

A strobe light suitable for emergency situations to greatly improve your visibility from a long distance. Includes 36 high brightness LEDs positioned behind orange lenses. Also features a strong magnetic base for mounting to cars, boats, or trucks. O-ring sealed.

- Requires 2 x D batteries
- Dimensions: 146(H) x 114(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3234	$39.95	$35.90	$31.90

Dash Mount Flashing LED -12V

With a metal bezel and a very bright 5mm LED, this flasher is excellent as a fake car alarm. Installed on your dash, thieves can be led to believe that your car is alarmed - especially combined with our car alarm stickers (Cat. LA-5104).

Specifications	
Bezel Dimensions	30(D) x 7(W)mm
Face Diameter	11mm
Operating Voltage	12V
Wire Lead Length	400mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	LA-5082	$6.95	$6.25	$5.50

SECURITY ACCESSORIES

Slave Door Lock Actuator

Door lock actuator used on passenger doors. Durable, waterproof and dustproof with Japanese mechanics, and supplied with universal mounting hardware. Wiring not included.

- Japanese Mabuchi motor
- Original Nylon and POM
- PTC overload protection
- Life cycle: 100,000 times
- Push/Pull force: > 4.0 kg
- Input voltage: 9 - 16VDC

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LR-8813	$12.95	$11.35	$10.35

Master Door Lock Actuator

Door lock actuator for Driver's door. Includes microswitch output to activate power lock relay LR-8818. Durable, waterproof and dustproof with Japanese mechanics. Supplied with universal mounting hardware. Wiring not included.

- Japanese Mabuchi motor
- Original Nylon and POM
- PTC overload protection
- Life cycle: 100,000 times
- Push/Pull force: > 4.0 kg
- Input voltage: 9 - 16VDC

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LR-8815	$14.95	$13.35	$11.70

2 Door Power Lock Kit

Add the convenience of central locking to your car with this low cost 2 door central locking kit. The system can be installed by the average handy person in just a couple of hours.

- Supplied with 1 master, 1 slave actuator, control relay, hardware and wiring loom.

1 YEAR WARRANTY

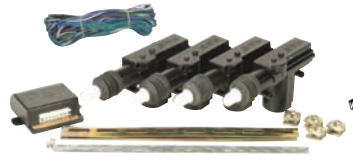
	Cat.	Qty 1+	Qty 2+	Qty 4+
2 Door Power Lock Kit	LR-8810	$29.95	$26.90	$23.70

CONTROL LOCKING (CONTINUED)

4 Door Power Lock Kit

Add that touch of luxury to your car with this low cost 4 door central locking kit, so when you unlock the drivers door the other three doors will also unlock. It can be connected to car alarms with a negative triggering locking output, or used with our LR-8839 remote controller for keyless entry.

- Supplied with 1 master, 3 slave actuators, control relay, hardware and wiring loom.



	Cat.	Qty 1+	Qty 2+	Qty 4+
4 Door Power Lock Kit	LR-8812	$34.95	$31.45	$27.90

Remote Controlled Car Central Locking System

Upgrade to a remote keyless car entry with this system. On rainy or windy days where you need a quick entry, unlock your doors as you approach the car. The system is easy to install with 2 keyfob and comes with two remote keyfobs.

SPARE REMOTE CONTROL

Spare Remote Control for LR-8839 Central Locking System. Supplied with one 12V battery (For replacement batteries use our SB-2422.)

	Cat.	Qty 1+	Qty 2+	Qty 4+
Centre Locking System	LR-8839	$49.95	$44.90	$39.90
Spare Remote	LR-8837	$19.95	$17.70	$15.70

4 Door Remote Controlled Central Locking Kit with Kill Switch

Lock and Unlock your car doors from a distance without having to fumble around with keys. Includes outputs to flash the indicators for visual confirmation, as well as outputs for sunroof and window closers (where fitted). An additional security button can be installed to cut off the fuel pump to prevent the car being stolen.

Supplied with 1 master actuator, 3 slave actuators, and control relay, two remotes with batteries, kill switch, hardware and wiring loom.

- Working voltage: 9 - 16VDC
- Frequency: 433.92MHz

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LR-8842	$79.95	$71.95	$63.95

Car Boot / Hatch Release

This great little gadget installs on your boot or hatch lock so that unlocking simply involves pressing a button (supplied)! Solenoid comes with mounting bracket, wiring loom (fuse included), dash mount pushbutton switch and installation instructions.

- Solenoid Unit (including bracket): 95(L) x 43(D) x 58(H)mm
- Switch (on L bracket):50 (H) x 44(W) x 40(D)mm

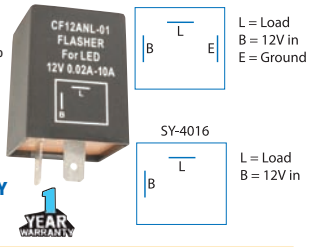
	Cat.	Qty 1+	Qty 2+	Qty 4+
	LR-8834	$39.95	$35.90	$31.90

RELAYS

Universal LED Flasher Relays

Specifically designed to work with replacement low current LED indicator lights which may "hyper flash" when used with your cars standard flasher relay. This high frequency flashing will burn out the globe quicker. The minimum load is negligible (0.02A). Some cars will even display a burnt out bulb indicator even though it's working fine, this unit will remedy that issue.

- Nominal voltage: 12VDC
- Operating voltage: 11VDC-15VDC
- Flashing frequency: 90 times/minute +/-10%
- Silent operation
- Dimensions: 40(H) x 28(W) x 28(L)mm



UNIVERSAL 2-PIN LED FLASHER RELAY
Switch current: 0.02A-10A
SY-4016

JAPANESE CAR 3-PIN LED FLASHER RELAY
Switch current: 0.02A-20A
SY-4018

Type	Current	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Pin	10A	SY-4016	$14.95	$13.35	$11.70
3 Pin	20A	SY-4018	$14.95	$13.35	$11.70

PRE-ASSEMBLED MODULES

Fuel Mixture Display Module for Cars

This very simple module will allow you to monitor the fuel mixtures being run by your car. This type of sensor is also known as an E.G.O. (exhaust, gas, oxygen) monitor. You can use it as a tuning tool, to help in vehicle modification or simply to see the behaviour of the engine control module. Indication is via 10 LEDs to show mixtures rich, lean and normal. The circuit connects to the EGO sensor mounted in the exhaust manifold and the cars battery.

Specifications	
Power	12VDC
Dimensions	81(L) x 51(W) x 22(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0374	$24.95	$22.35	$19.70

Versatile Automotive LED Display Module for Cars

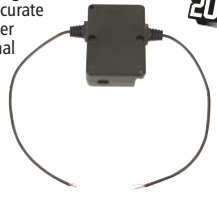
This versatile module will allow you to monitor the battery voltage, the airflow meter, or oxygen sensor in your car. It features a 10 LED indicator that illuminates in response to the measured voltage so you can see if your O2 sensor is causing your car to run too rich or too lean. Preset 9-12V, 0-5V or 0-1V ranges, complete with fast response time, high input impedance and auto dimming for night time driving.

Specifications	
Power	12VDC
Dimensions	81(L) x 52(W) x 21(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0375	$24.95	$22.35	$19.70

Speedo Corrector Module for Cars

When you modify your gearbox, diff ratio or change to a large circumference tyre, it may result in an inaccurate speedometer. This module alters the speedometer signal up or down from 0% to 99% of the original signal. With this improved model, the input setup selection can be automatically selected and it also features an LED indicator to show when the input signal is being received.



Specifications	
Power	12VDC
Dimensions	63(L) x 46(W) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0376	$39.95	$35.90	$31.90

CAR DISPLAYS

Self-Powered LED Panel Meters

Simple and easy to install self-powered meters with voltage or current display. The voltmeter has a simple 2-wire connection, and the current meter has 4-wire connection with an included current shunt. Auto zero calibration and easy to read red LED display. Give your next project a truly professional look. Perfect for automotive, caravan or 4WD use. Cutout size 42 x 23mm.

- Easy installation
- Automatic polarity sensing
- Auto zero calibration
- Self powered

LED VOLTMETER 0 - 30V DC

Specifications	QP-5586
Power requirements	8 - 30VDC
Measurement range	8-30VDC
Maximum display count	999
Sample frequency	400mS

Cat QP-5586

LED AMMETER 0 - 50A DC

Specifications	QP-5588
Power requirements	8 - 30VDC
Measurement range	0-50A
Maximum display count	1999
Sample frequency	400mS

- Current shunt included

Cat QP-5588

Note! When connecting the ammeter QP-5588 it is essential that the wiring instructions provided with the product are followed, or the meter may be destroyed.

	Cat.	Qty 1+	Qty 5+	Qty 10+
0 - 30VDC	QP-5586	$24.95	$22.35	$19.70
0 - 50ADC	QP-5588	$39.95	$35.90	$31.90

Auto Monitoring

AUTOMOTIVE TESTERS

Here's our NEW Automotive Testers & best sellers for the full range see pages 29 to 30 in our Test & Measurement section.

LED Probe Circuit Tester

NEW 2013

A must have for any mechanic or electrician to allow quick visible testing for power in circuits. Attach the clip to ground and touch the probe on the positive of a battery, relay, solenoid etc and the LED will glow if power is flowing through the circuit.

- Tests 6/12V circuits (not suitable for computer components)
- Durable insulated clip and heavy duty curly cord
- Spring loaded strain relief prevents the cord pulling out
- High intensity glow for under hood and under dash visibility
- Dimensions: 260(L) x 28(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2146	$9.95	$8.75	$7.75

As You Go Alternator / Battery Monitor

NEW 2013

Having car batteries or alternators diagnosed and fixed can be unnecessarily expensive, both sit firmly in the realm of DIY. Replacing an alternator can cost up to $300, when in fact all that may need to be replaced is a $20 voltage regulator. This device will help you diagnose the source of your cars electrical problems and potentially save you a lot of money.

It simply plugs into your car's cigarette lighter socket and will present you with alternator and battery status. On the left side is the alternator status indicating if it's charging the battery at too high a voltage (red LED >14.8V), Normal (green LED 13.4-14.75V) or too low (yellow LED <13.2V). On the right is the battery status green LED Charged 12.4-12.6V, yellow LED Recharge 11.8-12.35V, and red LED Dead <11.75V indicators.

Alternator status	
Red LED	Too high >14.8V
Green LED	Normal 13.4-14.75V
Yellow LED	Too low <13.2V
Battery status	
Green LED	Charged 12.4-12.6V
Yellow LED	Recharge 11.8-12.35V
Red LED	Dead <11.75V
Specifications	
Compatible	with 12VDC systems
Dimensions	85(L) x 75(W) x 15(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	PP-2142	$9.95	$8.75	$7.75

OBD2 (Car Computer) Plug / Memory Saver

NEW 2013

Most modern cars engine systems are controlled by a computer (engine control unit). They adjust fuel/air mixture, ignition timing, and a range of other engine performance settings based off information they receive from a number of sensors plugged into your car (oxygen sensor, temperature sensors etc). When disconnecting your car's battery for simple maintenance, all of your cars computer settings will be wiped. Radio station settings, engine fault codes, keyless entry codes, will all be gone and the ECU will have to re-learn them or you will have to manually re-program them. That's where the memory saver comes in. Just connect the cigarette plug to a 12VDC source, such as a jump starter and the OBD2 port to your cars socket (commonly found under the steering wheel) to save the ECU settings.

- 16 pin OBD-II Connector
- Easy to read LED indicates connection
- Compatible with most post-1996 vehicles fitted with an OBD2 port
- Length: 1.5m

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-2140	$12.95	$11.35	$10.35

Universal Battery Tester

NEW 2013

1 YEAR WARRANTY

A step above most other models this tester applies a load to the battery to get a measurement of the remaining capacity available for use. Tested battery capacity is shown as a percentage on the LCD screen together with the battery voltage.

- Suitable for testing:
  AA, AAA, C, and D cells
  9V batteries
  1.5 and 3V coin and button cells
  6 and 12V cylindrical cells
- Includes 2 x LR44 batteries
- Dimensions: 128(L) x 45(W) x 20(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	QP-2256	$14.95	$13.35	$11.70

Cigarette Lighter Battery Monitor

Check the voltage output of your car's battery quickly and easily. Simply plug this handy voltmeter into the cigarette lighter socket and get an instant readout of the electrical system's voltage.

- Display resolution: 0.1V
- Accuracy: +/- 2%
- Operating voltage: 8 - 30VDC

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QP-2220	$19.95	$17.70	$15.70

12V Car Voltage, Alternator and Temperature Display

NEW 2013

Plugs into the car's cigarette lighter socket to display the car's battery voltage and inside temperature. An audible and visual alarm can be set to trigger when the car's battery voltage dips too low, which could save you from breaking down in the middle of nowhere with a dead car battery. The display features a tri-coloured LED to show the battery status and electrical system status at a glance. Stylish modern design allows for easy dash mounting.

- Celsius or Fahrenheit temperature display
- 12VDC

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0117	$39.95	$35.90	$31.90

Automotive Multi-Function Circuit Tester with LCD

Designed to test the electrical system of an automotive vehicle running on 12V or 24V. One of the great features is being able to activate components with positive or negative without using a jumper wire. This would, for example, allow you to send voltage to a relay that controls whether or not a fan switches on. You can quickly test the voltage and polarity of a circuit or whether it's short or open, check continuity, locate cylinders which are misfiring, measure frequency of ignition pulses, test solenoids, lights and more. To top it all off the easy to read LCD is backlit so it's perfect for the dark crevices of an engine bay. All the features of a brand name unit at a fraction of the price.

- Works on 12 or 24V systems
- Dimensions: 240(L) x 78(H) x 40(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1494	$49.95	$44.90	$39.90

RELATED PRODUCT...
For full range of Automotive Test Equipment see page 29

Digital Tachometer

This easy-to-use hand-held digital tachometer measures up to 99,999 RPM and features a large LCD, laser pointer, low battery indicator, and memory recall for the last displayed value, minimum value, and maximum value.

It also features a DC socket for mains power (5VDC at 50mA). It can also be switched to measure either actual RPM or total revolutions.

Supplied with carry case and 600mm reflective tape marks, which can be cut to size.

- 5 Digit
- 99,999 RPM

1 YEAR WARRANTY

Specifications	
Display	2000 count
Test range	2.5 to 99,999 RPM
Basic DC accuracy	0.5%
Sampling	0.5 sec (over 120RPM)
Range select	Autoranging
Detection distance	50 to 500mm
Power consumption	50mA approx.
Batteries	4 x AA batteries (included)
Dimensions	160(H) x 72(W) x 37(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1448	$79.95	$71.95	$63.95

TEMPERATURE DISPLAYS

Mini Indoor Thermometer

This handy little thermometer is ideal for monitoring the temperature inside the house or the car, shed, fernery etc. The display unit is unobtrusive and can be mounted directly onto a wall.

Specifications	
Measures	50 (W) x 35 (H) x 20(D)mm.
Usage	Indoor
Range	-10°C to +50°C

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-6322	$14.95	$13.35	$11.70

Indoor/Outdoor Dual Display Thermometer

Another of our handy miniature thermometers, this one displays the inside and outside temperature simutaneously in °C on its LCD screen.

The unit will measure temperatures from -50°C to +70°C and and is ideal for keeping track of the temperature when travelling, or for general use around the home. The outside temperature sensor is fitted to a 3 metre cable.

- 116(W) x 30(H) x 30(D)mm.
- AA battery included.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-6326	$22.95	$20.35	$18.35

TYRE PRESSURE GAUGES

3 in 1 Digital Tyre Pressure Gauge

This pocket sized digital tyre gauge measures tyre pressure in four units, and also your tyre tread depth to take the guessing game out of when it's time to change your tyres. Features a large backlit LCD display for reading at night and also features a blue LED light in case you get caught out at night. A must have for any motoring enthusiast.

- Units of measure: PSI, Bar, Kgf/cm, kPa

Specifications - Tyre gauge	
Range	0-100PSI, 0-7.0Bar,0-7Kgf/cm ,0-700kPa
Resolution	0.1PSI, 0.01Bar, 0.01Bar,).01Kgf/cm ,1kPa
Accuracy	+/-1%
Specifications - Tread depth	
Range	0-22mm
Resolution	0.01mm
Battery	One CR2032 battery included
Dimensions	100(L) x 50(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2297	$14.95	$13.35	$11.70

Digital Tyre Pressure Gauge

Incorrect tyre pressure can have a detrimental effect on vehicle handling and cause uneven or premature tyre wear, which results in early (and expensive) tyre replacement. This simple device makes it easy to keep track of tyre pressure and avoid pressure related problems. The reading is displayed on the unit's built-in LCD screen. Includes an integrated torch for night measurements.

- Displays in bar, PSI, or kPa.
- Includes 2 x AAA batteries

Specifications	
Range	5 - 100PSI
Resolution	0.1PSI
Accuracy	+/- 0.5PSI
Operating temp	-10° - 40°C
Dimensions	156(L) x 42(W) x 20(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2293	$14.95	$13.35	$11.70

Wireless Tyre Pressure Monitoring Kit

NEW 2013

Unevenly inflated tyres can increase tyre tread wear, thus decreasing their life span and potentially causing steering alignment problems. Flat tyres also increase friction with the road, which will add drag to your car, ultimately costing you more money not to mention the discomfort when driving. This handy device has 4 external sensors that are screwed onto your tyre wheel stems which then feed PSI data to a 12VDC powered monitor that plugs into the cigarette lighter socket. The sensors will start transmitting when you reach over 20km/h (approx). The receiver will then rotate the latest pressure reading for each tyre position. Features a low pressure warning which sounds at 25PSI and a high pressure warning if the tyre(s) reach 48PSI (these thresholds can't be adjusted). Great for automotive enthusiasts, racing and 4WD applications.

- Suitable for vehicles designed for 30-42PSI

Specifications	
Pressure Measurement	PSI
Pressure Range	0 to 50PSI
High pressure alarm	48PSI (Fixed)
Low pressure alarm	25PSI (Fixed)
Each sensor includes	1 x CR-1632 3V Lithium battery (replaceable)
Operating Frequency	433.92MHz
Sensor dimensions	23.5(Dia.) x 15(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+
	QP-2298	$199.00	$178.95

ALCOHOL BREATH TESTERS

Alcohol Breath Tester

It measures up to a blood alcohol level of 0.2% - above that and you probably won't be able to walk. Response time is less than 8 seconds - all you do is wait about 10 seconds then blow into the sensor to give a reading in blood alcohol percentage or mg/litre. Requires 2 x AAA batteries.

- Compact purse or glove box size
- <8 second response time
- Low battery indicator
- Backlit LCD
- Dimensions: 103(L) x 37(W) x 19(H)mm

Note: Readings taken with this device are for reference only. In spite of its quality and accuracy, errors may occur due to operation or environmental conditions and we accept no liability or responsibility whatsoever for any consequences arising from the use of this device.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7298	$19.95	$17.70	$15.70

LCD Alcohol Breath Tester

Don't get behind the wheel if you're over the limit. Test yourself first with your own breathalyser. It takes a reading in less than five seconds and can sound an alarm at a preset level.

- Accuracy of .04mg/L
- Low battery indication
- Backlit LCD
- Requires 3 x AAA batteries
- Spare mouthpieces pack 10 (sold separately): Cat. QM-7297
- Dimensions: 105(H) x 62(W) x 25(D)mm

Note: Readings taken with this device are for reference only. In spite of its quality and accuracy, errors may occur due to operation or environmental conditions and we accept no liability or responsibility whatsoever for any consequences arising from the use of this device.

	Cat.	Qty 1+	Qty 3+	Qty 6+
Breath Tester	QM-7296	$49.95	$44.90	$39.90
Replacement Mouth Pieces	QM-7297	$9.95	$8.75	$7.75

Compact Fuel Cell Alcohol Breath Tester

Most of the consumer alcohol analysers on the market have semiconductor sensors. Their reliability and accuracy is limited to say the least, and some are little more than toys. A fuel cell provides far greater accuracy, will give readings with better reliability and is the technology used by law enforcement for years. Just blow in the mouthpiece for a reading in seconds. While it's not cheap, it's a lot less than the lowest fine for DUI and significantly cheaper than most other fuel cell analysers. Requires 3 x AAA batteries (use SB-2413)

- Accuracy +/-0.04°C mg/L (+/-0.008% BAC)
- Backlit LCD
- Alert at 0.05%
- Compact size, 105 x 45 x 20mm
- Pk10 spare mouthpieces Cat QM-7303

Note: Readings taken with this device are for reference only. In spite of its quality and accuracy, errors may occur due to operation or environmental conditions and we accept no liability or responsibility whatsoever for any consequences arising
from the use of this device.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Alcohol Tester	QM-7302	$119.00	$106.95	$94.95
Spare Mouthpieces - pack of 10	QM-7303	$4.95	$4.45	$3.90

Auto Interior Illumination

CAR LIGHTING - INTERIOR

T5 & T10 Replacement LED Globes - 12VDC

Replace or jazz up your automotive dashboard or indicator lighting with LEDs! Not only will they spruce up the look of your car, they are also long life with low current consumption and total reliability.

T5 STYLE T10 STYLE

- T5 & T10 sizes to suit most applications.
- 12VDC

		Cat.	Qty 1+	Qty 2+	Qty 4+
T5 Wedge LED Globe	White	ZD-0380	$1.95	$1.75	$1.40
T5 Wedge LED Globe	Red	ZD-0381	$1.95	$1.75	$1.40
T5 Wedge LED Globe	Blue	ZD-0382	$1.95	$1.75	$1.40
T5 LED Globe B8.5D	White	ZD-0384	$2.50	$2.21	$1.80
T5 LED Globe B8.5D	Red	ZD-0385	$2.50	$2.21	$1.80
T5 LED Globe B8.5D	Blue	ZD-0386	$2.50	$2.21	$1.80
T10 Wedge LED Globe	White	ZD-0390	$1.95	$1.75	$1.40
T10 Wedge LED Globe	Red	ZD-0391	$1.95	$1.75	$1.40
T10 Wedge LED Globe	Blue	ZD-0392	$1.95	$1.75	$1.40
T10 Wedge LED Globe	Quad White	ZD-0394	$3.50	$3.15	$2.85
T10 Wedge LED Globe	Quad Red	ZD-0395	$3.50	$3.15	$2.85
T10 Wedge LED Globe	Quad Blue	ZD-0396	$3.50	$3.15	$2.85

T10 Wedge Replacement LED Globes - 12VDC

Spruce up the lighting on your set of wheels with some LED replacement globes. The SMD LEDs provide 360° illumination for even distribution of light.

15 x Red T10 Wedge Replacement Globe 12V Cat ZD-0496
15 x Yellow T10 Wedge Replacement Globe 12V Cat ZD-0497

	Cat.	Qty 1+	Qty 4+	Qty 10+
T10 Wedge 15 x Red	ZD-0496	$14.95	$13.35	$11.70
T10 Wedge 15 x Yellow	ZD-0497	$14.95	$13.35	$11.70

T10 CREE® LED Glass Globe

CREE LED Light

NEW 2013

- Life: Greater than 50,000 hours
- Colour: White

Specifications	
Type	12/24VDC
Base	T10
Lumens	80
LED Module	1 x CREE® XP-E
View	120°
Dimensions	29(H) x 10(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
T10 Wedge White	ZD-0493	$17.95	$15.95	$14.35

T20 CREE® LED Glass Globe

CREE LED Light

NEW 2013

- Life: Greater than 50,000 hours
- Colour: White

1 YEAR WARRANTY

ZD-0494

Specifications	ZD-0494	ZD-0498	ZD-0499
Type	12/24VDC Indicator	12VDC Brake Light	12VDC Brake Light
Base	T20	T20	T20
Lumens	100	200	200
LED Module	1 x CREE® XP-E	1 x CREE® XP-E	3 x CREE® XP-E
View	120°	120°	120°
Dimensions	46(H) x 20(Dia)mm	46(H) x 21(Dia)mm	46(H) x 21(Dia)mm

Base	Cat.	Qty 1+	Qty 4+	Qty 10+
T20 Indicator	ZD-0494	$19.95	$17.70	$15.70
T20 Brake Light	ZD-0498	$19.95	$17.70	$15.70
T20 Brake Light	ZD-0499	$29.95	$26.90	$23.70

BAY15 & BA9 CREE® LED Glass Globe

CREE LED Light

- Life: Greater than 50,000 hours

Specs	ZD-0512	ZD-0513	ZD-0514
Type	12VDC	12VDC	12V/24VDC
Base	BAY15D	BA15D	BA15S
LED Module	1 x CREE® XP-E	1 x CREE® XP-E	1 x CREE® XP-E
View	120°	120°	120°
Dimensions	39(H) x 18.5(Dia)mm	39(H) x 18.5(Dia)mm	39(H) x 18.5(Dia)mm

1 YEAR WARRANTY

Specs	ZD-0515	ZD-0516	ZD-0518	ZD-0521
Type	12VDC	12VDC	12V/24VDC	12V/24VDC
Base	BA15D	BAY15D	BA15S	BA9S
LED Module	3 x CREE® XP-E	3 x CREE® XP-E	3 x CREE® XP-E	1 x CREE® XP-E
View	120°	120°	120°	
Dimensions	46(H)x21(Dia)mm	46(H)x21(Dia)mm	46(H)x21(Dia)mm	28(H)x10(Dia)mm

E10 CREE® LED Glass Globe

CREE LED Light

NEW 2013

- Life: Greater than 50,000 hours
- Colour: White

Specifications	
Type	12/24VDC
Base	E10
Lumens	80
LED Module	1 x CREE® XP-E
View	120°
Dimensions	28(H) x 10(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
E10 White	ZD-0523	$17.95	$15.95	$14.35

BAY15D Auto Replacement Lamps

Suitable for off-road, marine and show use only. Utilising SMD LED technology, these replacement globes offer a 360° arc of illumination and high flux Piranha LEDs for high brightness. Suitable for parkers, reverse, tail and brake light replacements.

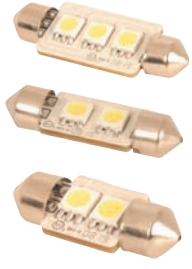
9 x White LED BAY15D Stop/Tail Globe Cat ZD-0361

NEW LOWER PRICE

		Cat.	Qty 1+	Qty 4+	Qty 10+
White	BAY15D	ZD-0361	$19.95	$17.70	$15.70

Festoon LED Globes

Interior lights in cars always blow when you need them most. Replace them with LEDs and never have a blown globe again. These festoon replacements have wide dispersion angle, are much brighter than conventional globes, last far longer and use less power.



- Peak operating voltage: 16.8V
- Viewing angle: 120°
- Life: 20,000 hours

Specifications:	ZD-0484	ZD-0486	ZD-0488
Festoon LED globes	31mm	36mm	41mm
Luminous intensity (mcd)	5,000	5,000	8,000
Forward current (mA)	60	60	90

	Cat.	Qty 1+	Qty 2+	Qty 4+
White 31mm	ZD-0484	$12.95	$11.35	$8.95
White 36mm	ZD-0486	$12.95	$11.35	$8.95
White 41mm	ZD-0488	$14.95	$13.35	$10.35

T10/211/BA9S 12V Automotive LED Kit

An easy to install LED kit to upgrade your cars interior light, dashboard light or even car parkers. Included is a 12 x LED array that can be connected to a T10, BA9s, or 211 base.

The 211 base is spring adjustable so it fits a wide variety of car ceiling 211 sockets and the LED array has a 3m adhesive backing for easy mounting.

- Voltage: 12VDC
- Colour: White
- LED array dimensions: 30(L) x 23(W) x 7(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	ZD-0580	$9.95	$8.75	$7.75

ZD-0514 ZD-0512 ZD-0516 ZD-0518

NEW 2013

Base	Colour	Lumens	Cat.	Qty 1+	Qty 4+	Qty 10+
BAY15D	White	100	ZD-0512	$19.95	$17.70	$15.70
BA15D	White	100	ZD-0513	$19.95	$17.70	$15.70
BA15S	White	100	ZD-0514	$19.95	$17.70	$15.70
BA15D	White	200	ZD-0515	$29.95	$26.90	$23.70
BAY15D	White	200	ZD-0516	$29.95	$26.90	$23.70
BA15S	White	200	ZD-0518	$29.95	$26.90	$23.70
BA9S	White	80	ZD-0521	$17.95	$15.95	$14.35

CAR LIGHTING - EXTERIOR

Automotive LED Energy Saving Replacement Globes - H1, H3, H4 & H7

A series of energy saving, long lasting SMD LED replacements for your cars brake lights, reversing lights, interior ceiling lights, or custom made torches.

AUTOMOTIVE H1 16 X WHITE SMD LED 12V - ZD-0581
- Base: H1
- Voltage: 12VDC
- Power: 3.84W
- Colour: White
- Dimensions: 69(L) x 24(Dia)mm

AUTOMOTIVE H3 16 X WHITE SMD LED 12V - ZD-0582
- Base: H3
- Voltage: 12VDC
- Power: 3.84W
- Colour: White
- Dimensions: 138(L) x 22(Dia)mm

AUTOMOTIVE H4 18 X WHITE SMD LED 12V - ZD-0583
- Base: H4
- Voltage: 12VDC
- Power: 3.84W
- Colour: White

AUTOMOTIVE H7 18X WHITE SMD LED 12V - ZD-0584
- Base: H7
- Voltage: 12VDC
- Power: 3.5W
- Colour: White
- Dimensions: 47(L) x 33(Dia)mm

ZD-0581 ZD-0582 ZD-0583 ZD-0584

Type	LEDS	Cat.	Qty 1+	Qty 2+	Qty 4+
H1	16	ZD-0581	$9.95	$8.75	$7.75
H3	16	ZD-0582	$9.95	$8.75	$7.75
H4	18	ZD-0583	$9.95	$8.75	$7.75
H7	18	ZD-0584	$9.95	$8.75	$7.75

HID Single Beam Bulbs - 35W

Drop-in replacements HID bulbs.
H3, H4 and H7 types available.

Specifications	
Power	35W
Lumination	2500 - 3,500 lumens
Lifespan	3000 hours
Colour temperature	3,000 - 30000K
Voltage	70 - 100V

SL-3411 SL-3412 SL-3413

Voltage	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
12V	H3	SL-3411	$14.95	$13.35	$11.70
12V	H4	SL-3412	$14.95	$13.35	$11.70
12V	H7	SL-3413	$14.95	$13.35	$11.70

HID Single Conversion Kits - 35 Watt

These are a simple single version of a High Intensity Discharge (HID) headlamp that you are now seeing on up market cars. It is one lamp set only. HID provides more than 3 times the amount of light of a quartz halogen bulb.

The clear white light is similar to daylight, reflecting road markings and signs better than quartz halogen lights.
HID lights are also more efficient and draw far less current than quartz halogen. These units are basically intended to convert a spotlight on, say a large boat, to a much more powerful and effective spotlight.
The kit includes a 35W Xenon HID lamp, 6000K, with H1, H3 or H4 base, ballast unit and wiring harness. They have a very simple installation. Light output approximately 3000 lumens at 12V.

Kits to suit H1 and H3 bases available

Shown without its cover

Warning: State road and traffic authorities do not allow retrofitting of these products to cars with ordinary headlights - even if it's really simple to do so.

	Cat.	Qty 1+	Qty 4+	Qty 10+
35W H1	SL-3367	$49.95	$44.90	$39.90
35W H3	SL-3365	$49.95	$44.90	$39.90

HID Dual Lamp Conversion Kit - 35 Watt

Used in the latest model luxury and high performance cars, High Intensity Discharge (HID) vehicle headlights are far brighter, whiter and more efficient than their quartz halogen predecessors. These HID dual lamp conversion kits are suitable for H4 bases and incorporate the latest in German engineering.

- 35W HID Xenon lamps
- 6000K colour temperature comparable to sunlight
- Extra bright 3200 lumens

Warning: State roads & traffic authorities prohibit The retrofitting of these products to cars with normal headlights. To be used only for off-road and showroom vehicles when replacing quartz halogen bulbs, or as headlight replacements for HID factory-fitted new model vehicles.

TECH TIP!
Sold as a pair

HID Xenon Dual Lamp Conversion Kit - Low Beam Cat SL-3416
Replacement High/Low HID Bulb Cat SL-3414
Replacement Ballast for HID Kit Cat SL-3418

	Cat.	Qty 1+	Qty 4+	Qty 10+
35W Low Beam - H4	SL-3416	$59.95	$53.95	$47.90
Replacement High/Low HID Bulb	SL-3414	$24.95	$22.35	$19.70
Replacement Ballast for HID Kits	SL-3418	$24.95	$22.35	$19.70

H4 & H7 Mounting LED Headlamp Modules

Technology breakthrough! For the first 100 years of automotive history headlight illumination was confined to a tungsten filament in a glass bulb designed by Thomas Edison. About 12-15 years ago along came the high intensity/discharge tubes. The HID illumination was certainly bright - but it was quite fragile. At last we are delighted to announce that - almost the last frontier - LED's have conquered this lighting application. We are therefore pleased to announce the arrival of solid state headlamp technology with two products.

H4 & H7 mounting LED Headlamp modules:

Each set consists of a pair of either H4 or H7 mount LED "bulbs" bonded to a billet of 6063 grade aluminium machined as a H4 or H7 and then sand blasted to assist in heat dissipation. The LED's are made by Samsung®.

Also included is a fully assembled and partially sealed controller assembly. Also provided is a special 25mm square boxer-type fan bolted to a heatsink plate. The controller is meant to bond to this plate via a 3M brand adhesive pad (provided). All wiring is factory pre-terminated. The controller has QC tabs which will plug into your car's existing wiring loom.

6 components (3 each side) are packed in a foam lined box. Nothing could be simpler.

SL-3498 SL-3499

	Cat.	Qty 1+	Qty 4+	Qty 10+
H4 Module	SL-3498	$169.00	$151.95	$134.95
H7 Module	SL-3499	$169.00	$151.95	$134.95

Glow Boots

Makers Name: Robert Willis
Location: New South Wales

Glowing boots with 9V battery and a strip of LEDs. Stands out in a crowd! White silicone and rubber for waterproofing.

For more details scan the QR code or go to www.jaycar.com.au/makers

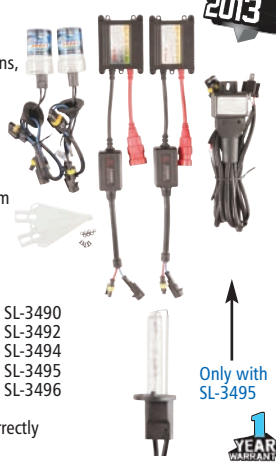
Auto Exterior Illumination

CAR EXTERIOR - H1 H3 H4 H7

Slim Ballast Xenon HID Light Kits

NEW 2013

HID provides far greater light output than standard automotive lights. At night, road signs, pedestrians, and general road hazards will receive much better illumination so you can drive with more confidence. This series of kits all feature a slim ballast design for ease of installation in engine bays and tight spaces.



- Ballast dimensions: 85(L) x 61(W) x 15(H)mm
- Lifespan: >2500 hours
- 300% more light than halogen
- HID 92 Lumens per watt compared to 18 Lumens per watt for a halogen

H1 Slim Ballast HID Kit 12V 6000K	SL-3490
H3 Slim Ballast HID Kit 12V 6000K	SL-3492
H4 Slim Ballast HID Kit 12V 6000K	SL-3494
H4 Slim Ballast HID High/Low Kit 12V 6000K	SL-3495
H7 Slim Ballast HID Kit 12V 6000K	SL-3496

Only with SL-3495

Note: Please ensure your lights are angled correctly
These lights are not ADR improved

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
H1	SL-3490	$49.95	$44.90	$39.90
H3	SL-3492	$49.95	$44.90	$39.90
H4	SL-3494	$49.95	$44.90	$39.90
H4 High + Low	SL-3495	$79.95	$71.95	$63.95
H7	SL-3496	$49.95	$44.90	$39.90

CAR LIGHTING - HEADLIGHT

12V LED Spot/Running Lamps

Waterproof, long life and easily installed. These super bright running lamps use 9 x LEDs to produce enough light to run during the day time or used as a spot/flood light fixture. The two piece set produces 120 lumens output improving road safety and visibility of vehicles on and off the road.

- 9 White LEDs
- Energy efficient 12V
- Brightness: 120 Lumen
- Dimensions: 88(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pair	SL-3445	$39.95	$35.90	$31.90

RELATED PRODUCT...
For trailer lights & accessories see page 238

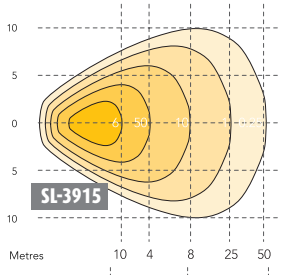
EXTERNAL LIGHT BARS & SPOTLIGHTS

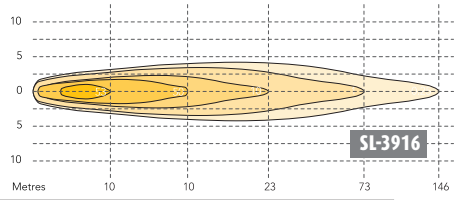
498 Lumen IP68 Solid Mini LED Spot/Flood Lights

NEW 2013

Amazingly bright, completely shock and waterproof, and unbelievably compact LED spot/flood lights that are an all-round solution for so many different applications. Use them as reversing lights or side lights on your 4WD, permanently mount them on your tinny as night fishing lights or nav lights, use them for deck lighting - we're sure you get the idea! Made from die cast aluminium alloy with an anodised polyester powder coat, 316 grade stainless steel hardware, a near unbreakable lexan polycarbonate lens, and featuring an IP68 rating and UV shielding, they are more than capable of handling whatever situation you throw them into. Operated from 10-36VDC, and available in either spot or flood beam patterns

- IP68 waterproof
- Shock proof
- 50,000 hour life
- Instant ON/OFF





Specifications	
Beam pattern	Flood (SL-3915), Spot (SL-3916)
Beam distance	Flood 50m, Spot 145m
Lumen output	500
Equivalent halogen lamp	35W
Input current	0.3A (12VDC), 0.16A (24VDC)
Operating temp	-40˚C - 60˚C
Dimensions (mounted)	70(H) x 40(W) x 55(D)mm

2 YEAR WARRANTY

Sold individually

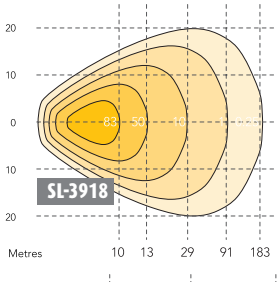
Type	Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
Flood Light	500	SL-3915	$59.95	$53.95	$47.90
Spot Light	500	SL-3916	$59.95	$53.95	$47.90

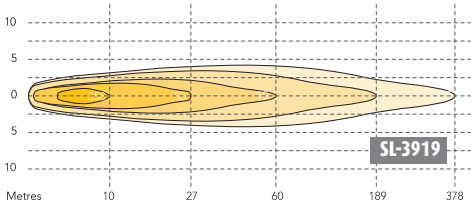
3,500 Lumen IP68 Solid LED Spot/Flood Lights

NEW 2013

Why would you ever buy halogen or HID spotlights again? These LED lights output over 3400 lumens of brilliant white light - that's more light than a 300W halogen! They are also completely shockproof, waterproof (IP68), rust proof, shatterproof, last for 50,000 hours, draw a measly 34W, turn on instantly, have a beam throw of up to 378m (for spotlight, flood = 183m), work off 12VDC or 24VDC, and can handle pretty extreme temperatures without fuss. A must have for any serious 4WD bull bar or roll bar, or for any other application where extreme ruggedness and blinding brightness are desired. Available in either spot or flood beam patterns, and fitted with marine grade 316 stainless steel fasteners.

- IP68 waterproof
- Shockproof
- 50,000 hour life
- Equivalent light to a 300W halogen
- Extreme





Specifications	
Beam pattern	Flood (SL-3918), Spot (SL-3919)
Beam distance	Flood 183m, Spot 378m
Lumen output	3486
Equivalent halogen lamp	300W
Input current	2.4A (12VDC), 1.2A (24VDC)
Operating temp	-40˚C - 60˚C
Dimensions (mounted)	120(Dia.) x 82(D)mm (excluding bracket)

2 YEAR WARRANTY

Sold individually

Type	Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
Flood Light	3500	SL-3918	$119.00	$106.95	$94.95
Spot Light	3500	SL-3919	$119.00	$106.95	$94.95

EXTERNAL LIGHTS & SPOTLIGHTS (CONTINUED)

Solid LED Light Bars for 4WD / Marine

Unlike traditional halogen light, or even the newer HID lights, LED lighting is completely immune to shocks and vibrations. In a 4WD or marine application these shocks and vibrations are quite severe, and lead to a very short lifespan for a halogen or HID globe. More and more 4WD and marine enthusiasts are looking to LEDs as an alternative to traditional lighting for this very reason, and also for the other benefits that LEDs provide: long life expectancy, low power consumption and their small size.

These solid LED light bars are a serious alternative to the typical "driving lights" installed on the bull bars and roll bars of utes and 4WDs. The lumen output (light output) is extremely high, they are completely waterproof (IP68), shock proof, and feature a near unbreakable 100% optically clear polycarbonate front lens cover. The colour of the light is also a brilliant cool white, which is much better for illuminating objects at night, giving much clearer vision over a greater distance. On top of that, the light is an "instant on"; meaning 100% light output the instant you flick the switch. Each is supplied with alloy mounting feet, stainless steel hardware, and a wiring harness with remote rocker switch and relay.

- 50,000+ hour life span
- >90% optical/reflector efficiency
- 9-32VDC input (24V systems will need 12V relay replaced with 24V item)
- Shock proof
- IP68 rated (waterproof)
- Operating temp: -40°C to - 60°C
- Seoul Semiconductor LEDs
- Aluminium alloy + stainless steel construction, safe for marine

Specifications	SL-3911 NEW 2013	SL-3912	SL-3914
Lumen output	1430	1736	4340
Power	12W	24W	60W
Beam Pattern	Flood (20˚)	Flood (20°)	Combination flood/spot (10°/20°)
LED quantity	4	8	20
Dimensions (no bracket)	80(W) x 110(H) x 80(D)mm	135(L) x 85(W) x 90(H)mm	290(W) x 85(W) x 90(H)mm
Dimensions (w/bracket)	-	195(L) x 85(W) x 110(H)mm	350(W) x 85(W) x 110(H)mm

				Cat.	Qty 1+	Qty 2+	Qty 4+
4 LED	2"	12W	NEW	SL-3911	$99.00	$88.95	$78.95
8 LED	4"	24W		SL-3912	$149.00	$133.95	$118.95
20 LED	10"	60W		SL-3914	$349.00	$315.00	$279.00

CAR LIGHTING - INTERNAL & EXTERNAL

12VDC 9 x LED Flexible Strip Light Kits

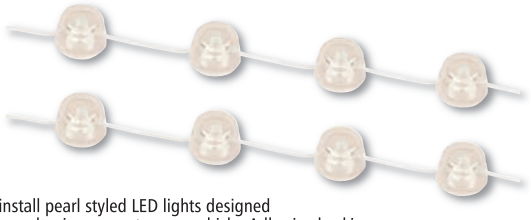
Give your car the visual edge it deserves with this easy to install LED light strip. It's a flexible 250mm long strip with 9 x bright LEDs. Adhesive backing makes installation easy. Ideal for lighting under your car, in your engine bay, just above your accelerator pedal, and in corners/dark areas of your interior. A mountable on/off switch terminal is included for easier control.

- Strip Length: 250mm
- 12VDC
- 20,000 hour burn time
- Waterproof
- Features on/off switch

Two colours available:

Colour	Cat.	Qty 1+	Qty 2+	Qty 4+
White	SL-3956	$9.95	$8.75	$7.75
Blue	SL-3957	$9.95	$8.75	$7.75

Exterior Automotive Pearl LED Kits



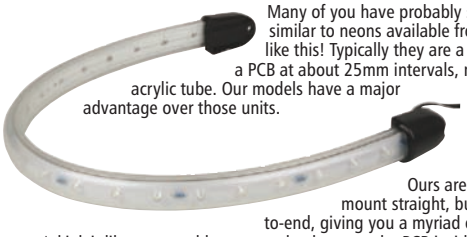
Easy to install pearl styled LED lights designed to add some luminescence to your vehicle. Adhesive backing plates allow you to stick them to any clean flat surface of your car.

- Pack of 8
- 12VDC
- Each LED is 25(Dia) x 18(H)mm

Two colours available:

Colour	Cat.	Qty 1+	Qty 2+	Qty 4+
White	SL-3959	$9.95	$8.75	$7.75
Blue	SL-3960	$9.95	$8.75	$7.75

12" Flexible 21 LED Light Tube



Many of you have probably seen LED lights styled similar to neons available from a few places, but not like this! Typically they are a line of LEDs mounted to a PCB at about 25mm intervals, mounted inside a clear acrylic tube. Our models have a major advantage over those units.

Ours are FLEXIBLE! They can mount straight, but will easily bend end-to-end, giving you a myriad of mounting options. You can't kink it like you would say, a garden hose, as the PCB inside will break if you push it too far, but they still provide excellent versatility. They are a great low current light source, drawing around 200mA.

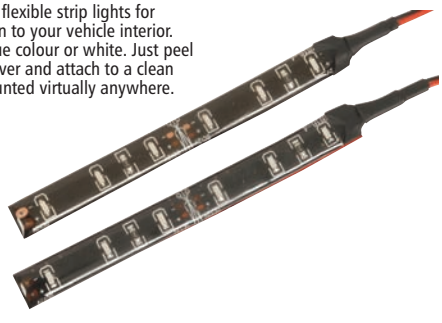
- The tube is 24" (610mm) long, and houses 21 super bright LEDs.
- The white unit is great for general low-current lighting in a caravan, 4WD etc.

	Cat.	Qty 1+	Qty 2+	Qty 4+
White	SL-3950	$24.95	$22.35	$19.70

2 x 6 LED Light 12VDC Strip Kits

Pack of 2 x 6 bright LED flexible strip lights for adding extra illumination to your vehicle interior. Choose from a sharp blue colour or white. Just peel off the protective 3M cover and attach to a clean dry surface. Can be mounted virtually anywhere.

Two colours available:

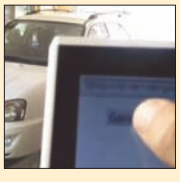


Colour	Cat.	Qty 1+	Qty 2+	Qty 4+
White	SL-3951	$14.95	$13.35	$11.70
Blue	SL-3953	$14.95	$13.35	$11.70

Wi-Fi Garage Door Opener

Makers Name: Russell Munro
Location: Western Australia

With the help of Jaycar and a Netduino I can now open my garage door with the Web browser on my mobile device. This is rather handy and very 007!



For more details scan the QR code or go to www.jaycar.com.au/makers

Trailer Lighting, Plugs & Cable

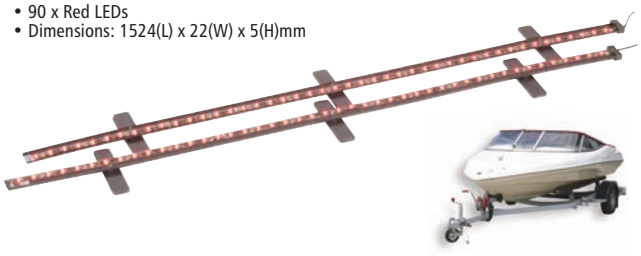
CAR LIGHTING - TRAILER LIGHTS

12V 1.5m LED Brake Light Strips

NEW 2013

Compared to normal incandescent bulbs LEDs are brighter, which makes them easier to see from a distance and light up quicker. This design features a 2 piece durable construction and waterproof for exterior mounting. Install in minutes using 4 pin SAE plug.

- 90 x Red LEDs
- Dimensions: 1524(L) x 22(W) x 5(H)mm



	Cat.	Qty 1+	Qty 2+	Qty 4+
	SL-3962	$49.95	$44.90	$39.90

12V LED Trailer Lights (stop/turn/tail)

NEW 2013

Regular bulb failures in your trailer lights are not only a pain in the posterior, but also quite dangerous to your fellow road users. Switching to LED alternatives solves this problem completely, since LEDs are not at all affected by shock and vibration, last over 50,000 hours, use a fraction of the power, and are actually more visible to other road users. These trailer lights are an "all-in-one" solution measuring only 100mm wide by 90mm high, and providing all the legal illumination needs of a caravan, boat trailer, camping trailer etc., being; Stop, Tail, Turn and number plate illumination. They appear to be quite water resistant but we cannot quote an IP rating for water and dust. Also has a red reflector panel.

- Screw stud mount.
- Dimensions: 100(W) x 90(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pair	ZD-0720	$39.95	$35.90	$31.90

TRAILER WIRING ACCESSORIES

Before 1988, the only trailer connector in common use was a 6 pin unit (There were some 5 pin plug/sockets found in Victoria, TAS, SA & NT). Since 1988 you must have a 7 pin (minimum) connector in order to register your boat, camper trailer etc. (You may need a bigger connector in some cases, so consult an auto electrician for this) in both Australia & New Zealand. You can, however, in the case of small box trailers use 5 core wire. See below

There are now three types of trailer connectors - each with its own wiring configuration. See our website for full details of pin connectors and colours...

MORE INFO WEB

Re-Wireable Trailer Connectors

NEW 2013

A range of the most common 7pin trailer plugs and sockets, featuring easy to use screw down terminals, corrosion resistant metal contacts and high quality UV stabilised plastics. In each type, the socket is fitted to the vehicle, and the plug is fitted to the trailer.

- All trailer plugs and adaptors are made from the highest quality material.

	Cat.	Qty 1+	Qty 10+	Qty 50+
7 Pin Flat Plug	PP-2050	$7.95	$6.95	$6.25
7 Pin Flat Socket	PS-2051	$7.95	$6.95	$6.25
7 Pin Large Round Plug	PP-2052	$7.95	$6.95	$6.25
7 Pin Large Round Socket	PS-2053	$7.95	$6.95	$6.25
7 Pin Small Round Plug	PP-2054	$7.95	$6.95	$6.25
7 Pin Small Round Socket	PS-2056	$7.95	$6.95	$6.25

Trailer Plug Adaptor Leads

NEW 2013

Often we find that the trailer we've borrowed from a mate does not plug into the socket on your vehicle, and that's where these trailer plug adaptor leads come in handy. About 300mm in length, and 6 versions available to fix up any mismatch of the 7 Pin Flat, 7 Pin Large round and 7 Pin Small round trailer connectors. Remember, match the plug end of the adaptor to the socket on your car, and the socket end of these adaptors to the plug end on your trailer.

- All trailer plugs and adaptors are made from the highest quality material.

	Cat.	Qty 1+	Qty 10+	Qty 50+
7 Pin Flat Plug to 7 Pin Large Round Socket	PA-2061	$14.95	$13.35	$11.70
7 Pin Flat Plug to 7 Pin Small Round Socket	PA-2062	$14.95	$13.35	$11.70
7 Pin Small Round Plug to 7 Pin Flat Socket	PA-2063	$14.95	$13.35	$11.70
7 Pin Large Round Plug to 7 Pin Flat Socket	PA-2064	$14.95	$13.35	$11.70
7 Pin Small Round Plug to 7 Pin Large Round Skt	PA-2065	$14.95	$13.35	$11.70
7 Pin Large Round Plug to 7 Pin Small Round Skt	PA-2066	$14.95	$13.35	$11.70

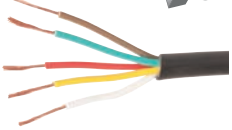
5 Core Box Trailer Cable - 10m

NEW 2013

A 10 metre length of the standard 5 conductors sheathed in a tough black PVC jacket.

Conductor colours are listed below. Makes wiring easy.

- Yellow (Left indicator)
- White (Earth)
- Green (Right indicator)
- Red (Stop light)
- Brown (Tail light, no. plate & clearance)



*** Suitable for box trailers only. You still must use 7 pin connectors.**

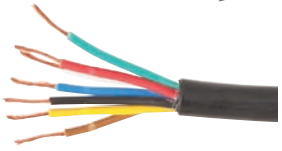
	Cat.	Qty 1+	Qty 4+	Qty 10+
	WH-3091	$24.95	$22.50	$19.95

7 Core Trailer Wiring Loom - 10m

NEW 2013

A 10 metre length of the standard 7 conductors sheathed in a tough black PVC jacket. Conductor colours are listed below. Makes wiring easy. 10m accommodates even up to quite large boat trailers.

- Yellow (Left indicator)
- Black (Aux/reversing)
- White (Earth)
- Green (Right indicator)
- Blue (Electric brakes)
- Red (Stop light)
- Brown (Tail light, no. plate & clearance)



	Cat.	Qty 1+	Qty 4+	Qty 10+
	WH-3090	$34.95	$31.45	$27.95

HIGH CURRENT CONNECTORS

Used widely in both domestic and industry, you'll find these connectors in many 4WD, boating, automotive and other industry applications. Supplied individually with a pair of contacts, all 5 current ratings have an operating temperature of -20° to +120°C.

Individual Nesting

They are genderless which means that there is no separate plug and socket and can be easily stacked to make custom configurations. Supplied as a red and black pair with contacts.

Specifications	PT-4405	PT-4407
Contact Rating	30A (max. 45A)	75A
Voltage	600V (AC or DC)	600 (AC or DC)
Contact Wire Size	1.63mm - 2.59mm (#10-#14 AWG)	1.3mm - 13mm (#6 - #16AWG)
Max Wire Insulation Dia	4.4mm	1.3 - 13.3mm
Contact Retention Force	9kgs (20lbs)	22kgs (50lbs)
Operating Temperature	-40 to +125°C	-40 to +125°C

↗	Cat.	Qty 1+	Qty 10+	Qty 50+
30A	PT-4405	$4.95	$4.45	$3.90
75A	PT-4407	$11.95	$10.70	$9.50

Moulded Pair

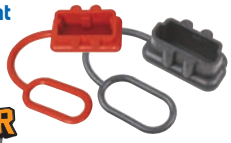
Used widely in both domestic and industry, you'll find this connector in many 4WD applications, boating, automotive and other industries. Supplied as a moulded 2 pole with contacts.

Specifications	PT-4420	PT-4422	PT-4424
Contact Rating	50A	120A	175A
Contact Wire Size	13.3mm2 (#6 AWG)	3.6mm2 (#2 AWG)	53.5mm2 (#1/0 AWG)
Voltage Rating	600V (AC or DC)	600V (AC or DC)	600V (AC or DC)
Max Wire Insulation Diameter	11mm	14.6mm	19mm
Contact Retention Force	22kg	45.5kg (100lbs)	137kg (300lbs)
Operating Temperature	-20 to +120°C	-20 to +125°C	-20 to +125°C
Anderson Part No.	SB50-6319	B120-6800G1	SB175-6325G1

↗		Qty 1+	Qty 10+	Qty 50+
50A	PT-4420	$9.95	$8.75	$7.75
120A	PT-4422	$19.95	$17.70	$15.70
175A	PT-4424	$29.95	$26.90	$23.70

Dust/Water Resistant Rubber Covers

A water and dust resistant rubber cover to suit our Anderson style connectors.



Suits	Cat.	Qty 1+	Qty 10+	Qty 50+
PT-4424	PM-4430	$10.95	$9.75	$8.75
PT-4420	PM-4434	$8.95	$7.95	$6.95

Dustcover for 120A Anderson Style Connectors

Rubber water and dust resistant cover for our 120A Anderson style connector PT-4422.

Suits	Cat.	Qty 1+	Qty 10+	Qty 50+
PT-4422	PM-4432	$9.95	$8.75	$7.75

Handles for Anderson Style Connectors

Facilitates easy connection/ disconnection. Ensures a secure grip, even with gloved hands for easier charging of electric forklifts etc.

Suits Anderson Style Connectors

50A	Cat PT-4420	Cat PM-4436
120A	Cat. PT-4422	Cat PM-4438
175A	Cat. PT-4424	Cat PM-4439

Suits	Cat.	Qty 1+	Qty 10+	Qty 50+
PT-4420	PM-4436	$7.95	$6.95	$6.75
PT-4422	PM-4438	$7.95	$6.95	$6.75
PT-4424	PM-4439	$12.95	$11.35	$10.95

SAE POWER LEADS

SAE Type Plug to Cigarette Lighter Socket

This unit consists of the popular polarised SAE plug/skt to a line cigarette lighter socket. The socket has a rubber moisture/dust cover. The lead assembly is 450 long and the wiring is 10A rated, unfused.

Three models available.

PP-2012 SAE Plug to Battery Fused Lead
PP-2014 SAE Plug to Cigarette Plug Lead
PP-2016 SAE Plug to Cigarette Socket Lead

↗	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-2012	$9.95	$8.75	$7.75
	PP-2014	$9.95	$8.75	$7.75
	PP-2016	$9.95	$8.75	$7.75

AUTOMOTIVE

MERIT Plugs & Sockets

Smaller in size than existing cigarette lighter connectors, they also have the advantage of a superior rugged construction and higher current carrying capability. The panel sockets feature a flip down cover to resist ingress of moisture and dust, and can withstand long periods of sustained current draw (unlike the el-cheapo versions of these connectors!). We have even included a modular merit plug to cigarette lighter adaptor in our range for those people who need both styles in a single connector (like those used on popular brands of 4WD fridges and spotlights).

PP-2090 Unfused Merit Plug (15A)
PS-2092 Merit Panel Socket with Sprung cover (max 15A)
PP-2094 Merit Plug with Cigarette Lighter adaptor (fused max 8A)
PS-2096 In-line Merit Socket with Cover (max 15A)

↗	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-2090	$5.95	$5.25	$4.75
	PP-2094	$6.95	$6.25	$5.50
	PS-2092	$9.95	$8.75	$7.75
	PS-2096	$6.95	$6.25	$5.50

Automotive Waterproof Plug & Socket Sets

Waterproof automotive connectors commonly used on many modern cars for wiring connections within the engine bay and other areas that are exposed to moisture. The interlocking parts are surrounded by a rubber seal, while an individual grommet seals each wire. Each package includes plug, socket, cable grommets and crimp pins.

Current rating: 20A (max.)
Pin spacing: 7.5mm
Assembled Length: 70mm

↗	Cat	Qty 1+	Qty 10+	Qty 50+
2 Way	PP-2110	$7.95	$6.95	$6.25
3 Way	PP-2112	$10.95	$9.75	$8.75
4 Way	PP-2114	$16.95	$14.95	$13.35
6 Way	PP-2116	$19.95	$17.70	$15.70

OBD II 16 Pin Connector

Most new cars sold in Australia have an OBD (On-Board Diagnostics) system. This connector interfaces with the current-standard 16 pin OBD-II socket for data analysis, performance tuning etc.

↗	Qty 1+	Qty 10+	Qty 50+
Cat. PP-0720	$24.95	$22.35	$19.70

BUS BARS

150A Insulated Bus Bar

This quality bus bar features a raised insulating base that isolates the bus bar from earthed or other live chassis. It features 2 x 5mm bolted terminals for connecting main power feeds, and 10 screw terminals for connecting lower current feeds of up to 10A each. Total current capacity is 150A, and is suitable for 12-32V wiring.
2 countersunk screw holes for 5mm metric fasteners.

- Not suitable for 240V active circuit
- Dimensions: 145(L) x 30(W) x 40(H)mm

↗	Cat.	Qty 1+	Qty 4+	Qty 10+
	SZ-2012	$14.95	$13.35	$11.70

TECH TIP

Assembling Anderson Style Connectors

These connectors come with absolutely no assembly instructions which might surprise some. Assembly is self-evident however. All that you really have to do is solder-sweat the heavy gauge wire into the 'pot' on the end of the connector tip. It is a good idea to puddle some solder into the pot and then lower the tinned wire into the pot. It may be necessary to apply some more heat (usually with a small gas torch or stove gas top) to get the whole lot to melt. Try to keep the joint immobile until the solder 'sets', then cool off under tap water. And of course you can always crimp the lead into the solder cup, but this should really be done professionally. A piece of heat shrink tidies the job nicely. The wire/lug/contact then just snaps into the housing.

Cigarette Lighter Power

ADAPTORS & EXTENDERS

Car Lighter Socket To Battery Clips

This lead simply clips onto car battery terminals and has a cigarette lighter socket on the other end.

- Cable length 400mm

Cat.	Qty 1+	Qty 10+	Qty 50+
PP-2007	$9.95	$8.75	$7.75

Merit Plug to Cigarette Lighter Socket

Allows you to connect mobile phone chargers and other cigarette lighter plugged devices into vehicles equipped with a Merit socket.

	Qty 1+	Qty 10+	Qty 50+
Cat. PP-2099	$12.95	$11.35	$10.35

Cigarette Lighter Extension Cord

Cigarette lighter extension cord with dust cover. Extend the range of your cigarette lighter devices.

- Cable length: 3m
- Fuse: 5A

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1992	$12.95	$11.35	$10.35

Cigarette Lighter Double Adaptor

Incorporates a lighter plug and two inline sockets

- 150mm cable

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2006	$9.95	$8.75	$7.75

CIGARETTE LIGHTER ADAPTORS

Fused Cigarette Lighter Plug to 2.1mm DC Plug

Has an internal fuse & LED power indicator.

- Supplied with 3A, 3AG fuse
- Cable length 500mm
- Surplus purchase

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1993	$2.95	$2.60	$2.30

Fused Cigarette Lighter Plug to 2.5mm DC Plug

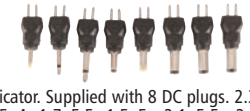
Has an internal fuse and LED power indicator.

- Supplied with 5A, 3AG fuse
- Cable length 1.5m

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1997	$4.95	$4.45	$3.90

Cigarette Lighter Adaptor Cable

Contains no circuitry and allows you to power 12V devices from your car cigarette lighter socket.



- Cable length 1.8m long
- Fused
- LED power indicator. Supplied with 8 DC plugs. 2.35 x 0.75, 3.5 x 1.35, 4 x1.7, 5.5 x1.5, 5 x 2.1, 5.5 x 2.5, 2.5mm & 3.5mm. (OD first then ID)

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1996	$8.95	$7.95	$6.95

CIGARETTE LIGHTER SOCKETS

Cigarette Lighter Chassis Socket

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2002	$6.95	$6.25	$5.50

Cigarette Lighter Inline Socket

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2003	$3.95	$3.45	$3.15

Under Dash Cigarette Lighter Socket With Protective Cap

This socket can be mounted under a car or boat dash and features a hinged cap with protective gasket.

- Heavy duty auto cable pre-attached
- 450mm length.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2008	$12.95	$11.35	$10.35

Under Dash Double Cigarette Lighter Socket

A dual socket mounted on a steel frame which in turn mounts under the dashboard. Heavy duty auto cable is included with in-line fuse holder and terminated with a bullet and Y connector.

- Lead length 300mm
- Self tapping mounting screws included

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2009	$12.95	$11.35	$10.35

Car Cigarette Lighter Socket with Lid

This weatherproof 12V car cigarette lighter socket can be flush mounted and has a springloaded lid to keep it free of dust and debris.

- Perfect for caravan, marine, 4WD or other harsher than normal applications.

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-2015	$14.95	$13.35	$11.70

Weatherproof Cigarette Lighter Socket - 15A

Suitable for marine, caravan, 4WD, camping or anywhere you need 12V power. Protected from the elements by a spring-loaded sealed cover and fully sealed electrical connection.

- Panel mounting.
- 32mm mounting hole
- Flylead termination.

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-2011	$14.95	$13.35	$11.70

Under-Dash or Panel Mount USB Socket

NEW 2013

This handy fitting enables you to position a USB outlet under a wooden, fibreglass or metal dashboard complete with ruber plug moisture/dust cover. Alternatively, you can remove the actual USB insert to panel mount the USB socket. The insert requires a 22mm Dia hole but it will go through upto 38mm of panel so your panel can be wood if necessary. This is a very versatile fitting and you have to see it to appreciate what it is capable of.

- In-line fuse holder included
- Sealing washers/gaskets included
- Mounting screws included
- Smart silver trim bezel included

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-2016	$9.95	$8.75	$7.75

CIGARETTE LIGHTER PLUGS

3 Amp Lead With Bare Ends

Lead with a 3 amp fused cigarette lighter plug on one end. Internal fuse: 10A, 3AG

- Cable length: 450mm approx.
- Cable thickness: 18AWG
- Surplus purchase

Cat.	Qty 1+	Qty 3+	Qty 6+
3A PP-1995	$2.95	$2.60	$2.30

8 Amp Lead With Bare Ends

A lead consisting of an 8 amp fused cigarette lighter plug and 5 metres of thick cable.

- 18 AWG cable

Cat.	Qty 1+	Qty 3+	Qty 6+
8A PP-1998	$9.95	$8.75	$7.75

Cigarette Lighter Plug

Simply plugs into the car cigarette lighter socket to obtain 12VDC from the car battery.

- Economy grade

ECONOMY	Qty 1+	Qty 10+	Qty 50+
PP-2000	$1.65	$1.45	$1.30

Cigarette Lighter Plug - Fused

As PP-2000 but with the added safety benefit of being fused. Supplied with 3A fuse.

- Recommended

FUSED	Qty 1+	Qty 10+	Qty 50+
PP-2001	$3.95	$3.45	$3.15

TECH TIP!

Auto cigarette lighter wiring rarely allows more than 15A to be taken from this circuit.

CARAVAN PLUGS & SOCKETS

2 Pin 32 Volt Plugs & Sockets

For low voltage applications such as caravans etc up to 15amps.

Line Socket PS-2073 | Surface Socket PS-2074 | Line Plug PP-2075

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2073	$16.95	$14.95	$13.35
PS-2074	$16.95	$14.95	$13.35
PP-2075	$8.95	$7.95	$6.95

CIGARETTE LIGHTER ADAPTORS & SPLITTERS

A new exciting range of 12/24VDC adaptors to suit a variety of cars or trucks. Choose between six new models including dual and triple outlet models, some with USB ports to charge Smartphones or Tablets and other USB charged gadgets. They all come with an adjustable screw on the cigarette lighter plug which allows secure connection to all types of European, American, & Japanese cars.

• Input voltage: 12-24VDC • Output voltage: 12V-24VDC • Output current: <6A

Choose one suitable for your needs

12V/24VDC Cigarette Lighter Socket Splitter

NEW 2013

- Powers two 12V-24V accessories at the same time
- Adjustable plug to fit all types of European, American & Japanese cars
- Cigarette lighter plug can be adjusted 180°
- Power LED indicator
- Overall width: 60mm

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2130	$9.95	$8.75	$7.75

Cigarette Lighter Twin Socket

Allows you to run two 12V appliances from the one socket.

- LED indicator.

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2005	$9.95	$8.75	$7.75

12V/24VDC Cigarette Lighter Socket with USB Port

NEW 2013

Allows you to power a USB gadget while still keeping your cigarette lighter socket available.

- Cigarette lighter plug can be adjusted 180°
- Adjustable plug to fit all types of European, American & Japanese cars
- LED indicator
- USB output: 5VDC 2A (max)
- Overall width: 60mm

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2126	$14.95	$13.35	$11.70

12V/24VDC Cigarette Lighter Socket Splitter Cable

NEW 2013

- Powers two 12-24VDC accessories at the same time
- Adjustable plug to fit all types of European, American & Japanese cars
- Power LED indicator
- Overall width: 60mm
- Cable length: 1.2m

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.2 metres	PP-2132	$18.95	$16.95	$14.95

12V/24VDC Cigarette Lighter Socket Splitter with 2 x USB Ports

NEW 2013

- Powers two 12-24VDC accessories at the same time
- Fits all types of European, American & Japanese cars
- Cigarette lighter plug can be adjusted 180°
- Power on/off switch function
- USB output: 5VDC 2A (max)
- Overall width: 90mm

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2128	$24.95	$22.35	$19.70

12V/24VDC Cigarette Lighter Socket Splitter Cable with 2 x USB Ports

NEW 2013

- Powers two 12-24VDC accessories at the same time
- Fits all types of European, American & Japanese cars
- Detachable mounting bracket with 3M adhesive
- Power on/off switch function
- USB output: 5VDC 2A (max)
- Overall width: 90mm
- Cable length: 1.2m

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.2 metres	PP-2129	$29.95	$26.90	$23.70

12VDC Cigarette Lighter Socket 3 Way Splitter with USB

NEW 2013

This device converts one 12V socket into three to power all the gadgets you need as you drive, including a GPS and phone chargers. The body rotates to the most convenient angle, and a USB port provides 5VDC power to power USB gadgets, including an iPhone®. Three built-in LEDs also indicate the status of your vehicles battery voltage.

- 12VDC adjustable plug
- 3 x 12VDC outputs
- 1 x 5VDC 500mA USB port
- Dimensions: 115(L) x 111(W) x 32(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
PS-2124	$14.95	$13.35	$11.70

12V/24VDC Cigarette Lighter Socket 3 Way Splitter Cable

NEW 2013

- Powers three 12-24VDC accessories at the same time
- Adjustable plug to fit all types of European, American & Japanese cars
- Detachable mounting bracket with 3M adhesive
- Power on/off switch function
- Overall width: 90mm
- Cable length: 1.2m

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.2 metres	PP-2134	$24.95	$22.35	$19.70

12V/24VDC Cigarette Lighter Socket 3 Way Splitter

NEW 2013

- Powers three 12-24VDC accessories at the same time
- Adjustable plug to fit all types of European, American & Japanese cars
- Input voltage: 12-24VDC
- Output voltage: 12V-24VDC
- Output current: <6A
- Overall width: 90mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2135	$14.95	$13.35	$11.70

12VDC Car Cigarette Lighter Socket 4 Way Splitter with USB Port

This socket splitter enables you to power up to four 12VDC plug appliances at once. Plus it features a USB port to charge your iPhone® or other USB gadget. Comes with a detachable mounting base so you can mount this unit horizontally or vertically on your dash or centre console, and detach it for flexible use. Use this socket splitter with our 12V plug to socket extension cord PP-1990 to enjoy more creature comforts in your tent on your next camping trip.

- 12VDC plug with 1.2m lead
- 4 x 12VDC socket outputs
- 1 x 5VDC 1A USB port
- 10A max

Cat.	Qty 1+	Qty 3+	Qty 6+
PS-2019	$19.95	$17.70	$15.70

3 Metre Retractable Cigarette Lighter Extension Cord

Rugged housing helps keeps the cord free from damage.

- Ideal for four wheel drive use.
- Fuse: 5A
- Dimensions: 139(W) x 149(H) x 45(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1990	$16.95	$14.95	$13.35

15A Heavy Duty Cigarette Lighter Extension Lead - 3m

NEW 2013

A heavy duty waterproof cigarette lighter extension lead to extend the reach of your 12VDC devices . Features internal fuse protection with LED power indicator. Fits all 12VDC plugs & sockets. Flexible curly cord design.

- Length: 3m

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-2144	$12.95	$11.35	$10.35

Auto Wiring Accessories

AUTO TERMINAL SETS

Gold Plated Battery Terminals

This terminal is made from brass, and is gold plated. It has a 6mm bolt, and wing nut on which our gold terminals can be connected to run cabling to equipment.

- Suits positive car battery terminals

AMP-KING

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HC-4040	$9.95	$8.75	$7.75

RELATED PRODUCT...
See our full range of Automotive Test Equipment on page 29.

500A Red/Black Snap On Battery Terminals

NEW 2013

Red/Black quick connect/disconnect battery terminals for automotive, marine, or industrial use. Used for protecting the exposed positive/negative battery connections from dust, grime or other build up.

- Rated at 500A
- Dimensions: 66(L) x 42(W) x 25(H)mm

Note: Battery not included

	Cat.	Qty 1+	Qty 10+	Qty 50+
	HM-3087	$14.95	$13.35	$11.70

4 Wire 2G + 4G + 2x8G Battery Terminals

These 4 wire gold battery terminals will accept one 2GA, 4GA cables and two 8G cables.These units come complete with clear cover.

- NOTE: Cable not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Positive	HC-4048	$19.95	$17.70	$15.70
Negative	HC-4049	$19.95	$17.70	$15.70

TECH TIP!

Most of the products shown on these pages are designed for powering accessories in cars and trucks. They are perfect for example in wiring big power amps in your car. If you intend to use these components for critical applications (say, where safety is an issue) we suggest that you wire multiple circuits if possible and limit the current in each circuit accordingly. Then if you lose one circuit you will have some redundancy. You don't, for example want to lose your headlamp circuit at night because of Deep Purple! This principle, of course, applies to all high current wiring.

GOLD CAR SOUND CONNECTORS

4 Way Banana Plug/Socket Assembly

Basically just 4 male and 4 female banana plugs. This connector is ideal for use in car audio applications, such as speaker or even power connections. Just mount one side in the boot of your car or to your speaker box for easy installation. Cable termination is via gold-plated grub screws, and plugs are labelled +, -, -, + to quickly identify correct polarity when installing.

CRAZY CLEARANCE

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-0440	$9.95	$8.75	$7.75

Gold Plated High Current Cable Joiners

If you have ever tried to connect, crimp or solder 8G or even 4G cable you will understand how convenient these gold-plated brass connectors are. Cable termination is via gold grub screws and joiner is supplied with small transparent insulating heatshrink tube.

AMP-KING

	Cat.	Qty 1+	Qty 4+	Qty 10+
Suit 8G cable	HC-4065	$7.95	$6.95	$6.25
Suit 4G cable	HC-4064	$7.95	$6.95	$6.25

TECH TIP!

Ga = gauge or standard wire size

0G - Outside dia of 15mm - actual cable is 45mm²
2G - Outside dia of 12mm - actual cable is 35mm²
4G - Outside dia of 10mm - actual cable is 20mm²
8G - Outside dia of 6mm - actual cable is 8mm²

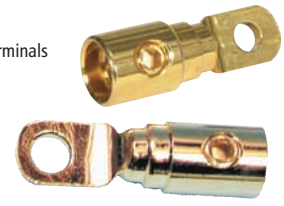
Gold Plated Power Terminals

AMP-KING

Make terminating large power cables simple and neat, with no need for crimping. Each has a grub screw for attaching to the power cable, and is gold plated for a professional look.

0GA
To run 0GA cables to equipment and battery terminals
• 8mm bolt hole • 52mm length

2GA
To run 2GA cables to equipment and battery terminals
• 8mm bolt hole • 57mm length



4GA
To run 4GA cables to equipment and battery terminals
• 8mm bolt hole • 56mm length

0GA TO 4GA Gold Plated Adaptor Terminal
Allows connection of 0G cable to 4G screw down connections, such as on our gold battery terminals or car amplifiers
• 8.6mm shaft • 55mm length

RELATED PRODUCT...
We now stock 0 Gauge cable see page 116

	Cat.	Qty 1+	Qty 4+	Qty 10+
0GA	HC-4068	$8.95	$7.95	$6.95
2GA	HC-4066	$8.95	$7.95	$6.95
0 - 4GA	HC-4069	$8.95	$7.95	$6.95
4GA	HC-4062	$8.95	$7.95	$6.95

Gold Plated Terminals

Supplied in pairs. 1 red and 1 black.

GOLD PLATED - SMALL EYE - CRIMP

Specifications	
Hole size	3.7mm
Cable hole diameter	4.8mm
Size including cover	35mm
Metal thickness	1mm

AMP-KING

Per pair	Cat.	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4560	$2.75	$2.45	$2.15

8G QC GOLD CONNECTORS LARGE EYE RED & BLACK
Suits thinner cable (8GA):
• 1 x Red & 1 x Black.

Specifications	
Hole size	8.4mm
Cable hole dia	4.8mm
Size including cover	42mm

AMP-KING

Per pair	Cat	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4562	$2.95	$2.60	$2.30

4G QC GOLD CONNECTOR LARGE EYE RED & BLACK
Suits Large Cable (4GA):
• Pack 1 black and 1 red

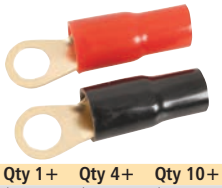
Specifications	
Hole size	8.4mm
Cable hole dia	8mm
Size including cover	50mm
Metal thickness	1.5mm

AMP-KING

Per pair	Cat	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4564	$3.95	$3.45	$3.15

GOLD PLATED CRIMP CONNECTOR 12.7MM EYE RED & BLACK PAIR
Suits 2GA cable.

Specifications	
Eye hole size	12.7mm
Cable hole dia.	9.6mm
Size including cover	60mm
Metal thickness	1.5mm



Per pair	Cat.	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4565	$5.95	$5.25	$4.75

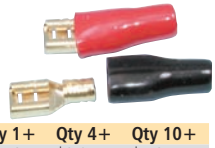
8G GOLD PLATED FORKED SPADE TERMINALS
Suits thinner cable (8GA):
• 1 x Red & 1 x Black

Specifications	
Hole size	3.7mm
Cable hole dia	4.8mm
Size including cover	33mm

AMP-KING

Per pair	Cat	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4566	$2.95	$2.60	$2.30

QC CONNECTORS FORKED SPADES
Standard quick connect lugs that fit speaker terminals etc.
• Cable hole diameter - 3.7mm
• 1 x red & 1 x black.



AMP-KING

Per pair	Cat	Qty 1+	Qty 4+	Qty 10+
1 x Red & 1 x Black	PT-4568	$2.50	$2.21	$1.95

MULTI-WAY CONNECTORS

Automotive Multi-Way Plug / Sockets - 250 Series

Commonly used in automotive applications such as stereo and CB installations, or for replacements in existing wiring. The housings interlock and they come in 2, 3, 4, 6 or 8 way sets. Each comes with plug, socket, and male and female locking spade lugs.

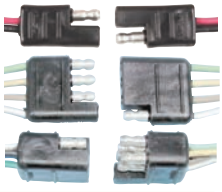
2 way & 6 way shown

	Cat.	Qty 1+	Qty 10+	Qty 50+
2 Way	PP-2062	$2.95	$2.60	$2.30
3 Way	PP-2064	$3.45	$3.05	$2.75
4 Way	PP-2066	$3.95	$3.45	$3.15
6 Way	PP-2068	$4.95	$4.45	$3.90
8 Way	PP-2069	$6.95	$6.25	$5.50

Wired Multi Pin Plugs / Sockets

Heavy duty plug and socket with bullet type connectors.

- Pre wired with 18AWG wire.
- Extremely handy when cables need to be periodically unplugged.
- Bullet style connectors



	Cat.	Qty 1+	Qty 10+	Qty 50+
2 Way	PP-2034	$3.45	$3.05	$2.75
4 Way	PP-2030	$8.95	$7.95	$6.95
6 Way	PP-2032	$11.95	$10.70	$9.50

Multi Pin Plug / Socket

Each set consists of nylon body for male/female, along with male/female socket pins to fill all available poles. Will mate with standard MOLEX-type connectors.

TECH TIP!

Sometimes called Soft Shell connectors

	Cat	Qty 1+	Qty 10+	Qty 50+
2 Pole	PP-2020	$2.75	$2.45	$2.15
3 Pole	PP-2022	$2.95	$2.60	$2.30
6 Pole	PP-2024	$3.95	$3.45	$3.15
12 Pole	PP-2026	$6.95	$6.25	$5.50

Pin Extraction Tool

Take the frustration out of removing Molex connector pins with these time save tools. Simply slide the tool over the connector and push the plunger to effortlessly remove the pin. Both male and female pin extractors available.

TH-1730

TH-1732

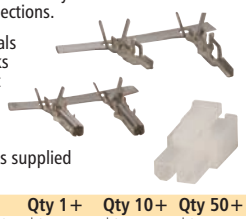
	Cat.	Qty 1+	Qty 3+	Qty 6+
Male Extractor	TH-1730	$17.95	$15.95	$14.35
Female Extractor	TH-1732	$17.95	$15.95	$14.35

MULTI PIN (MOLEX)

Miniature Nylon MOLEX-Type Connectors

Suitable for high current/high density, wire-to-wire or wire-to-board applications. They are suitable for both power and signal connections.

- Fully isolated terminals
- Positive housing locks
- Four point of contact for reliability
- Low engagement force terminals
- Male and female pins supplied



	Cat.	Qty 1+	Qty 10+	Qty 50+
2 Pin	PP-2021	$2.75	$2.45	$2.15
3 Pin	PP-2023	$2.95	$2.60	$2.30
4 Pin	PP-2027	$3.45	$3.05	$2.75
6 Pin	PP-2025	$3.95	$3.45	$3.15

ALLIGATOR CLIPS

4mm Banana Socket to Alligator Clip

Available in black or red

	Cat.	Qty 1+	Qty 10+	Qty 50+
Red	PA-3668	$2.75	$2.45	$2.15
Black	PA-3669	$2.75	$2.45	$2.15

Cat III Rated Banana Alligator Clip

Takes standard and fully insulated 4mm banana plugs and turns them into an alligator clip.

- CATIII rated.
- Sold as a pair, red and black.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-3696	$9.95	$8.75	$7.75

Alligator Clips

- Sold as a pair
- 1 x red & 1 x black

		Qty 1+	Qty 10+	Qty 50+
26mm	HM-3020	$1.50	$1.35	$1.20
32mm	HM-3022	$1.95	$1.75	$1.55

Alligator Clips With Screw

No soldering required. Large alligator clips with plastic finger grips and a screw for connection.

- Length 55mm
- Max jaw opening 12mm
- Sold as a pair or singly

1 x Red & 1 x Black		Qty 1+	Qty 10+	Qty 50+
Pair	HM-3025	$2.45	$2.15	$1.95

Jumper Lead Kits

HEAVY DUTY

This kit has large alligator clips and heavy cable. The alligator clips are approximately 50mm long, and have jaw openings of about 10mm.
Cable length is approx 300mm.

- 10 leads supplied, 2 of each colour.

STANDARD

Ideal for connecting devices for testing. Alligator clip size is approx 40mm, jaw opening is about 8mm and cable length is approx 400mm.

- 10 leads supplied 2 of each colour.

HEAVY DUTY	Qty 1+	Qty 10+	Qty 50+
WC-6020	$11.95	$10.70	$9.50
STANDARD			
WC-6010	$6.95	$6.25	$5.35

TECH TIP!

If you are reading this page you may have application for high-current wiring. For suitable heavy-duty cable check out pages 115 & 116 for cable down to "0" gauge. You might also find the automotive cabling hardware and fuses on pages 242 & 245 interesting.

Car Battery Type Clips

- All have insulated colour coded handles
- Sold in pairs.

15 AMP Length 55mm. Max jaw opening 14mm
30 AMP Length 70mm. Max jaw opening 20mm
50 AMP Length 98mm. Max jaw opening 25mm
200 Amp Length 130mm. Max jaw opening 35mm
400 Amp Length 155mm. Max jaw opening 22mm

The 400 amp versions are very large and very strong. You can not put your finger in the end, because it will probably give you a bite! These are ideal for our 300W and 500W inverters.

HM-3060

HM-3085

		Qty 1+	Qty 10+	Qty 50+
15 Amp	HM-3010	$3.50	$3.15	$2.75
30 Amp	HM-3012	$3.95	$3.45	$3.15
50 Amp	HM-3015	$5.50	$4.90	$4.30
200 Amp	HM-3060	$9.95	$8.75	$7.75
400 Amp	HM-3085	$15.95	$14.35	$12.70

400 Amp Stainless Steel Battery Clamps

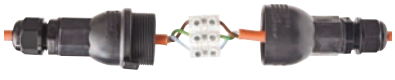
Rated at 400 amps this pair of heavy duty battery clamps are ideal for making up jumper leads and for use with our inverters. All metal parts are made from 316 marine grade stainless steel, they can be taken and used anywhere without the risk of corrosion.

- Sold per pair
- Current rating: 400 amps
- Length 165mm
- Max jaw opening 50mm
- 316 Grade (marine grade) stainless steel

	Cat.	Qty 1+	Qty 10+	Qty 50+
	HM-3086	$12.95	$11.35	$10.35

Waterproof Cable Connector Housing

Designed to enable the joining of electrical cables and provide a robust and waterproof connection.



This housing will also accomodate any connector which is sized within the internal dimensions of the housing. Note: cable not included.

Specifications	
Operating Temp	-20°C to +75°C
Ingress Protection	IP68
Voltage Rating	250V (for included terminal block)
Current Rating	16A max (for included terminal block)
Accepted Cable Types	Circular sheath with 6 - 10mm dia

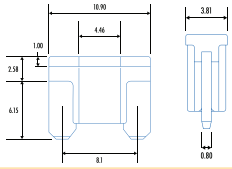
	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4068	$29.95	$26.90	$25.45

Auto Circuit Protection

STANDARD BLADE FUSES

Micro Blade Fuses - 10 Pack

Micro-blade fuses to suit newer model cars. The pack contains one each of 5, 7.5, 25, 30A and two each of 10, 15, 20A.

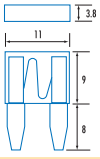


Current	Multipack	Cat.	Qty 1+	Qty 10+	Qty 25+
5-30A	Pkt 10	SF-2146	$9.95	$8.75	$7.75

Mini Blade Fuses

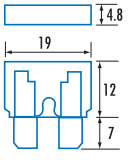
They look similar to the standard car blade fuses, except they are smaller. Used in new Holden Commodores, Falcons and more.

Quantity breaks for one type only



Current	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
2A	Grey	SF-1909	$0.95	$0.85	$0.75
3A	Pink	SF-1910	$0.95	$0.85	$0.75
5A	Orange	SF-1912	$0.95	$0.85	$0.75
7.5A	Brown	SF-1913	$0.95	$0.85	$0.75
10A	Red	SF-1914	$0.95	$0.85	$0.75
15A	Blue	SF-1915	$0.95	$0.85	$0.75
20A	Yellow	SF-1916	$0.95	$0.85	$0.75
25A	Clear	SF-1917	$0.95	$0.85	$0.75

Standard Blade Fuses



Quantity breaks for one type only

Current	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
1A	Black	SF-2126	$0.85	$0.75	$0.65
2A	Grey	SF-2127	$0.85	$0.75	$0.65
3A	Pink	SF-2128	$0.85	$0.75	$0.65
5A	Orange	SF-2130	$0.85	$0.75	$0.65
7.5A	Brown	SF-2132	$0.85	$0.75	$0.65
10A	Red	SF-2134	$0.85	$0.75	$0.65
15A	Blue	SF-2136	$0.85	$0.75	$0.65
20A	Yellow	SF-2138	$0.85	$0.75	$0.65
25A	Clear	SF-2137	$0.85	$0.75	$0.65
30A	Green	SF-2139	$0.85	$0.75	$0.65
35A	Purple	SF-2143	$0.85	$0.75	$0.65
40A	Orange	SF-2141	$0.85	$0.75	$0.65

Automotive Fuse Pack

This kit contains around 120 standard size automotive fuses housed in a 6 compartment storage box. 20 x 5A, 10A, 15A, 20A, 25A & 30A fuses are included.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SF-2142	$23.95	$21.35	$18.95

WIRE TAPPED BLADE FUSES

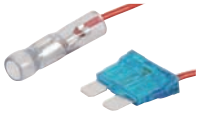
Wire Tapped Mini Blade Fuses

Mini size blade fuses with a 200mm long flying lead so you can easily tap off the right circuit to install accessories or diagnose problems. Each fuse also has an indicator lamp so you can quickly see if it has blown or not and the lead terminates to a female bullet crimp connector.

Current	Cat.	Qty 1+	Qty 10+	Qty 25+
10A	SF-5120	$6.95	$6.25	$5.50
15A	SF-5122	$6.95	$6.25	$5.50
20A	SF-5124	$6.95	$6.25	$5.50

Wire Tapped Standard Blade Fuses

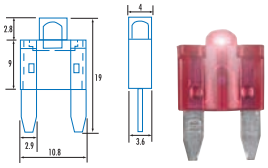
Standard size blade fuses with a 200mm long flying lead so you can easily tap off the right circuit to install accessories or diagnose problems. Each fuse also has an indicator lamp so you can quickly see if it has blown or not and the lead terminates to a female bullet crimp connector.



Current	Cat.	Qty 1+	Qty 10+	Qty 25+
10A	SF-5110	$6.95	$6.25	$5.50
15A	SF-5112	$6.95	$6.25	$5.50
20A	SF-5114	$6.95	$6.25	$5.50

BLADE FUSES WITH FAILURE LAMP

Not your ordinary blade fuse, these have an integrated lamp which illuminates the moment the fuse blows. This makes finding that blown fuse a cinch, especially when the fuse is in a hard to get location, like under the car dashboard. They don't cost much either, so they are a very worthwhile investment.



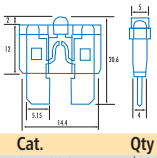
Mini Blade Fuses with Failure Lamp

- Ideal for circuits up to 32VDC
- 19(H) x 10.8(L) x 4(W)mm approx

Quantity breaks for one type only

Current	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
3A	Pink	SF-5070	$1.30	$1.15	$1.01
5A	Orange	SF-5072	$1.30	$1.15	$1.01
7.5A	Brown	SF-5074	$1.30	$1.15	$1.01
10A	Red	SF-5076	$1.30	$1.15	$1.01
15A	Blue	SF-5078	$1.30	$1.15	$1.01
20A	Yellow	SF-5080	$1.30	$1.15	$1.01
25A	Clear	SF-5082	$1.30	$1.15	$1.01
30A	Green	SF-5084	$1.30	$1.15	$1.01
5-30A	Pkt 6	SF-5085	$6.95	$6.25	$5.50

Standard Blade Fuses with Failure Lamp



- Measures: 20.6(H) x 14.4(L) x 5(W)mm approx

Quantity breaks for one type only

Current	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
3A	Pink	SF-5020	$1.20	$1.05	$0.95
5A	Orange	SF-5022	$1.20	$1.05	$0.95
7.5A	Brown	SF-5024	$1.20	$1.05	$0.95
10A	Red	SF-5026	$1.20	$1.05	$0.95
15A	Blue	SF-5028	$1.20	$1.05	$0.95
20A	Yellow	SF-5030	$1.20	$1.05	$0.95
25A	Clear	SF-5032	$1.20	$1.05	$0.95
30A	Green	SF-5034	$1.20	$1.05	$0.95
5-30A	Pkt 6	SF-5035	$5.95	$5.25	$4.75

BLADE FUSE HOLDERS

30A In-Line Blade Fuse Holder

Accepts standard car type blade fuses. Supplied with heavy duty cable in a loop. Simply cut and join to existing cable.

- Low volt DC only

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2040	$2.95	$2.60	$2.30

30A Panel Mount Blade Fuse Holder

Panel mount for auto or marine applications. Takes standard blade fuses, rated for 12VDC 30A max. Cover included

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2046	$3.95	$3.45	$3.15

30A In-Line Blade Fuse Holder with Failure Lamp - Water Resistant

These fuse holders accept ordinary blade fuses and have an integrated lamp that will light up when the fuse blows, making it easy to find the offending fuse. This is especially useful if the fuse is in a difficult or crowded location. They are supplied with 110mm leads and available to suit standard blade and mini-blade fuses.

- 30A max rating
- Ideal for circuits up to 32VDC

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2042	$4.95	$4.45	$3.90
Mini Blade	SZ-2043	$4.95	$4.45	$3.90

30A Stackable Blade Fuse Holder (In-Line Style)

These fuseholders accept standard blade fuses. They slide together if more than one is required, so you could have a bank of these mounted in your car. They have a cap over the front which makes them look very neat and tidy.

- Handle 30 amps.
- Supplied with a wire loop, which can be cut to suit.
- Low volt DC only
- Dimensions: 41(L) x 24(H) x 10(W)mm

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2045	$3.95	$3.45	$3.15

RELATED PRODUCT...
Full range of Glass Fuses M205 3AG 5AG see page 179

CIRCUIT PROTECTION (CONTINUED)

6 Way Automotive Fuse Box

Fits six standard car blade fuses.Fibreglass reinforced nylon base with splashproof polycarbonate cover.

- 32VDC max
- 15A/circuit max
- 45A/block max
- 6.3mm QC terminals
- Measures 112(L) x 46(W) x 40(H)mm

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2002	$12.95	$11.35	$10.35

10 Way Blade Fuse Block with LED Indicators

Perfect for automotive or marine applications. Features a common supply rail and includes a removable protective cover and LED indicators for each fuse.

- 10 way
- Dimensions: 95(L) x 85(W) x 36(H)mm
- Input: 100A Max
- Output: 30A Max Per Circuit

Fuses not included

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2008	$19.95	$17.70	$15.70

10 Way Weatherproof Fuse Block with LED Indicators

This 10-way weatherproof fuse block is perfect for a marine application, keeping fuse and wiring connections well protected from corrosion. Each fuse socket has an LED indicator to give you quick indication of blown fuses, and there are also a number of slots to fit spare fuses. Designed for panel mount applications.

- Dimensions: 125(W) x 89(H) x 47(D)mm

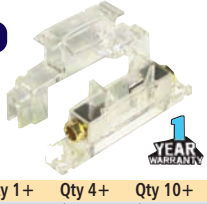
Fuses not included (without cover)

Type	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard	SZ-2001	$24.95	$22.35	$19.70

4G Platinum Inline Maxi Blade Fuseholder

AMP-KING

These Inline fuse holders accept our range of gold-plated maxi fuses and uses compression fitting gold-plated cable termination. Put this next to your battery to protect your hotline from a short-circuit, or runaway amplifier.



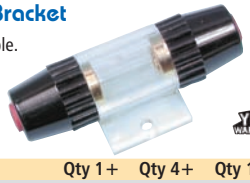
- Suits 4G cable.

Type	Cat.	Qty 1+	Qty 4+	Qty 10+
Maxi	SZ-2082	$14.95	$13.35	$11.70

Gold Fuseholder With Mounting Bracket

Gold contacts and will accept both 8G & 4G cable. A mounting bracket is incorporated. Length 80mm - accepts 5AG fuses.

AMP-KING



Type	Cat.	Qty 1+	Qty 4+	Qty 10+
5AG	SZ-2060	$9.95	$8.75	$7.75

5AG Gold Fuses

These fuses suit our fuseholders shown here. They have gold plated ends - and the inside conductor is also gold. Available in a range of current ratings.

- Fuse size 38(L) x 10(Dia)mm

AMP-KING

Current	Cat.	Qty 1+	Qty 4+	Qty 10+
20A	SF-1970	$2.25	$1.95	$1.80
30A	SF-1972	$2.25	$1.95	$1.80
40A	SF-1974	$2.25	$1.95	$1.80
50A	SF-1976	$2.25	$1.95	$1.80
60A	SF-1978	$2.25	$1.95	$1.80

Gold AML Wafer Fuses

These wafer fuses feature gold finish screw-down contacts for maximum current transfer and conductivity and are designed for really high current applications such as for car audio amplifiers, etc.

- Use with our SZ-2075 - Inline Wafer Fuseholder.
- 5 current ratings available.

AMP-KING

Current	Cat.	Qty 1+	Qty 4+	Qty 10+
80A	SF-1990	$8.95	$7.95	$6.95
100A	SF-1992	$8.95	$7.95	$6.95
150A	SF-1995	$8.95	$7.95	$6.95
200A	SF-1997	$8.95	$7.95	$6.95
250A	SF-1999	$8.95	$7.95	$6.95

Inline AML Wafer Fuse Holder

Designed for high end car audio installations. Suits 4, 2 & 0 gauge cable. 2 "O" rings keep moisture out as well as grommets at each end. Accommodates wafer type fuses with gold screw-down connections. Supplied with two gold-plated down-sizer rings to ease cable termination.

- 156(L) x 32(dia)mm - excluding mounting tabs.

AMP-KING

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-2075	$24.95	$22.35	$19.70

2 x 60 Amp Circuit Breaker

Use this high current inline distribution circuit breaker and never have to pay for expensive fuses ever again. It accepts 3 x 4 gauge cable in, running to two resetable 2 gauge outputs. This 2 x 60amp circuit breaker offers a lower voltage drop than a fuse and can be used as an occasional circuit isolation switch. Ideal for high quality car audio installations

- Measures: 100(L) x 70(W) x45(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-6000	$29.95	$26.90	$23.70

120 Amp with Voltage Display

Never pay for expensive high current fuses ever again. Featuring a 3 digit LED voltage display so you can keep an eye on the battery's condition, a status LED which will illuminate only when there is a complete connection. High quality screw down connections.

Specifications	
Accepts:	1 x 0 gauge in
	1 x 0 gauge out.
Power Handling:	120 Amps
Dimensions:	45(H) x 100(W) x 45(D)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-6002	$39.95	$35.90	$31.90

GOLD FUSED POWER DISTRIBUTION BLOCKS

Two Way Distribution Block

This block will accept one 4GA (thick) cable. The power passes through fuses, then to 2 outputs for 8GA (thin) cable.

- Size 102(L) x 51(W) x 32(H)mm
- Accepts 5AG fuses - fuses extra

AMP-KING

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-2070	$24.95	$22.35	$19.70

Gold Power Distribution Block

This block will accept one 4G wire in, and distribute to four 8G out.

- Size includes mounting bracket 63(L) x 50(W) x 25(H)mm.

AMP-KING

Cat.	Qty 1+	Qty 4+	Qty 10+
HC-4020	$12.95	$11.35	$10.35

16 Way 100A Brass Distribution Bar

An ideal way to distribute high current paths. An 8mm stud provides for incoming cable and distribution is via 16 screw terminals with 7mm cable entry holes.

Do not use for 240V mains

- Solid brass with high quality plastic bridge mounts
- Rated for 100A, suitable for high-power car audio power distribution or multiple earth links
- Dimensions: 112(L) x 18(W) x 12(H)mm

AMP-KING

RELATED PRODUCT...
See our 8 way version SZ-2003 on page 287

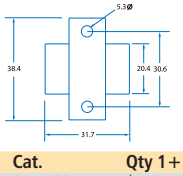
Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-2004	$9.95	$8.75	$7.75

CIRCUIT BREAKERS

Chassis Mount Auto Circuit Breakers

Single pole thermal circuit breaker.

NEW LOWER PRICE



- Auto reset.

Current	Voltage	Cat.	Qty 1+	Qty 10+	Qty 25+
20A	12VDC	SF-4100	$7.95	$6.95	$6.25
30A	12VDC	SF-4102	$7.95	$6.95	$6.25
40A	12VDC	SF-4104	$7.95	$6.95	$6.25
50A	12VDC	SF-4106	$7.95	$6.95	$6.25
20A	24VDC	SF-4108	$7.95	$6.95	$6.25

Comms Equipment

UHF TRANSCEIVERS (CB RADIOS)

80 Channel 0.5W UHF Transceiver

Keeps you clearly in touch with the kids at up to 3km range. Perfect for camping, picnics in the bush, skiing and hiking trips, it also features an integrated LED torch so you can find your way home in the dark. Requires 3 x AAA batteries.

- Integrated Blue LED Torch
- Up to 3km range
- 80 channels
- Push to Talk (PTT) function
- Electronic volume control
- Scan channel, call tone and monitor functions.
- Low battery alert
- Duplex function
- Dimensions: 122(H) x 54(W) x 35(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	DC-1001	$24.95	$22.35	$19.70

80 Channel 0.5W UHF Transceivers Twin Pack

This 2 pack of mini UHF CB communicators can keep you clearly in touch with the kids at up to 3km range! Perfect for camping, picnics in the bush, skiing and hiking trips, they retain many of the features and build quality of more expensive units but come in a child friendly package. Features an integrated LED torch so you can find your way in the dark.

Supplied as a pair, in funky orange and green.

- Integrated Blue LED Torch
- Up to 3km range
- 80 Channels
- Push to Talk (PTT) function
- Electronic volume control
- Scan channel, call tone and monitor functions.
- Low battery alert
- Duplex range extender
- Requires 3 x AAA batteries per unit
- Dimensions: 55(W) x 110(H) x 35(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair	DC-1003	$49.95	$44.90	$39.90

80 Channel 0.5W UHF Transceiver

This lightweight hand-held transceiver is suitable for all manner of professional and recreational activities such as hiking, boating, kayaking, building sites, IT-cables, electricians, inter-car road trip communication or farming, etc. Open field transmission range is up to 5km, with typical city range up to one kilometer.

- Covers Australian 80 UHF CB channels and repeaters
- Green backlit LCD screen
- 0.5W maximum RF output
- No license required
- Requires 3 x AAA
- Dimensions: 115(H) x 65(W) x 35(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	DC-1021	$39.95	$35.90	$31.90
Spare Rechargeable Battery	DC-1029	$14.95	$13.35	$11.70
Cigarette Lighter Charger	DC-1036	$17.95	$15.95	$14.35
Mains Charger	DC-1034	$17.95	$15.95	$14.35

80 Channel Rechargeable 0.5W UHF Transceiver

Out in the bush and you need to read a map in the dark? No problem! Your CB has an LED torch built in to it. Naturally it does all the normal CB functions as well and includes desktop charging cradle, AC adaptor, two transceivers and batteries.

- Power output: 0.5W
- Up to 3km range
- Up to 30 hours battery life
- Charging time: 6 hours
- 80 channels
- PTT function
- Scan function
- Auto squelch

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair with Charger	DC-1009	$69.95	$62.95	$55.95

80 Channel 0.5W UHF Transceivers - Pair

Everything you need for mobile CB communications. 80 channel UHF CB radios complete with rechargeable batteries, dual charger cradle and a range of accessories. They have 0.5 watt output for up to 5km transmission range and CTCSS function. Ideal for bushwalking, camping, sports, etc.

- Sold as a pair
- No license required
- 80 channels and 38 sub-channels
- Babysitter and parent-monitor
- VOX function
- Auto power off
- Stop watch
- Repeater function
- Automatic squelch
- Battery level indicators
- Key lock function
- Key tone function
- Backlit LCD
- Supports external headset
- Supports external AC-DC charger

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair with Charger	DC-1027	$99.00	$88.95	$78.95
Spare Rechargeable Battery	DC-1029	$14.95	$13.35	$11.70
Cigarette Lighter Charger	DC-1036	$17.95	$15.95	$14.35
Mains Charger	DC-1034	$17.95	$15.95	$14.35
Leather Pouch	DC-1018	$6.95	$6.25	$5.50

80 Channel 0.5W UHF Transceiver Headset

This has all the features you need from a 80 channel UHF CB headset, including ample 3km range, channel scanning, push to talk and CTCSS. This adjustable headset with plug-in mic provides a high level of passive noise attenuation. They are perfect for a noisy environment, with all in one design and wireless go-anywhere ease and comfort, without missing a word in your conversation.

- Up to 3km range
- 80 Channels
- Push to Talk (PTT) function
- Electronic volume control
- Scan channel, call tone and monitor functions
- Low battery alert
- Adjustable headset with comfort padded ear cups
- Mains charger included

Ideal for marshalls at sporting events, large construction sites etc.

	Cat.	Qty 1+	Qty 5+	Qty 10+
0.5W UHF	DC-1052	$119.00	$106.95	$94.95

80 Channel Advanced 2 Watt UHF Transceiver with CTCSS

With 2 watts of output power, this UHF transceiver is certainly no toy. This top quality unit will suit many professional and leisure activities with a range of up to 10km line-of-sight. You can save battery power by switching to the low setting (500mW) for local communications (such as around the campsite). It's loaded with all the features you would expect from an advanced system like CTCSS that reduces interference from other users on the same channel, 75 voice channels, plus it has a rechargeable Li-ion battery with a plug pack charger.

- CTCSS function
- Hi/Lo power output
- Dual watch/vox function
- Key lock/tone function
- Optional 12V charging (cable not included)
- Auto squelch function
- Low battery display
- Backlit LCD
- Roger tone
- Li-ion rechargeable battery
- Stop watch
- Dimensions: 120(L) x 57(W) x 35(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	DC-1049	$79.95	$71.95	$63.95
In-dash Car Charger	DC-1035	$17.95	$15.95	$14.35
Speaker Mic	DC-1062	$24.95	$22.35	$19.70
Spare Battery	DC-1048	$29.95	$26.90	$23.70
Leather Pouch	DC-1042	$9.95	$8.75	$7.75

UHF TRANSCEIVERS (CB RADIOS) (CONTINUED)

80 Channel 3W Waterproof Floating UHF Transceiver

A robust floating transceiver suitable for professional or recreational use. A 10km line-of-sight range will allow you to keep in contact over large distances and IP67 rating means it can be submersed in up to 1m of water. Battery power can be conserved by switching to the low setting (500mW) for local communications around base camp. Includes a rechargeable Li-ion battery with a charging cradle and power supply. There are 75 voice channels and the CTCSS system reduces interference from users on other channels. Great for camping, off-road race crews, roadies, people who work at large sporting venues, and more.

- IP67 rated
- CTCSS function
- Hi/Lo power output
- Auto squelch function
- Low battery display
- Backlit LCD
- Roger tone
- Li-ion rechargeable battery
- Stop watch
- Dimensions: 120(L) x 57(W) x 35(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1074	$119.00	$106.95	$94.95

80 Channel High Power 5W UHF Transceiver

Remarkable range and clarity. With a powerful 5W output you'll be able to communicate far beyond consumer grade models. For short range banter, you can switch to power-saving 1W output so you can recharge later rather than sooner. Other features include 80 channels with CTCSS, channel scan, VOX and repeater functions. Includes Li-Ion rechargeable battery pack, AC adaptor, charging cradle and belt clip.

- Range: 3km/20km
- 1W/5W switchable output power
- 80 channels
- CTCSS sub channel calling
- LCD backlit display
- Dual watch
- VOX function
- Repeater function
- Detachable antenna
- Key lock function
- Channel scan function
- Auto power saver mode
- Dimensions (without antenna): 130(L) x 60(W) x 35(D)mm
- Antenna: 165mm long

	Cat.	Qty 1+	Qty 5+	Qty 10+
5W UHF	DC-1065	$149.00	$133.95	$118.95
Cigarette Lighter Charger	DC-1099	$17.95	$15.95	$14.35

80 Channels Compact 5W UHF CB Radio - In-Dash

Fixed installation UHF transceivers in your vehicle are always a better option as you get range and power. You'll always be connected to a higher gain antenna with a ground plane and you can always get more transmitting power as you aren't restricted to small batteries that hand-held units typically have. All the usual UHF CB features, such as channel scan, repeater access and CTCSS. Includes handheld microphone with push to talk and channel change buttons. Ideal as a vehicle unit for 4WD etc.

- 80 channel
- Signal strength meter
- Up to 20km range line-of-sight
- Compact size for under-dash mounting
- Mic and lead included
- Mounting bracket included

	Cat.	Qty 1+	Qty 5+	Qty 10+
5W UHF Radio	DC-1120	$169.00	$151.95	$134.95
Mic Bracket Clip NEW	DC-3080	$3.95	$3.45	$3.15

80 Channel 5W Console UHF Transceiver - 240VAC

Most UHF base stations transceivers are vehicle units adapted to the job. This one is specifically designed as a base station unit as it runs from mains power and is designed to be installed in a console or cabinet. It features channel scan, CTCSS, repeater access and maximum legal power output of 5W. Ideal for farmers, 4WD clubs etc.

- 5W transmission power
- 240VAC powered
- 80 channel
- Signal strength meter
- Up to 20km range line-of-sight
- Console mounting
- Mic and lead included

Product may vary from picture

Due mid 2013

	Cat.	Qty 1+	Qty 5+	Qty 10+
5W UHF	DC-1130	$229.00	$209.00	$182.95

VHF TRANSCEIVERS

3W VHF Marine Waterproof Floating Transceiver

A VHF radio on a boat is a must have. You never know when your boat may be rendered inoperative by engine malfunction, a storm, rogue waves, or a monster from the deep. This transceiver will give you coverage of all international VHF marine channels so you can call for help when needed or communicate with other boats. This unit is fully submersible so if you find your boat has been capsized and you are stuck under the hull you know you'll be still be able to call for help. Includes a Li-ion rechargeable battery pack, AC adaptor, charging cradle and belt clip.

- IP67 rated
- 1/5W Switchable output power
- Backlit LCD
- Dual and triple watch function
- Channel scan function
- One-touch emergency channel 16
- Auto power saver mode
- Dimensions: 130(L) x 60(W) x 35(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1093	$99.00	$88.95	$78.95

5W VHF Marine Radio Transceiver

This powerful 5W hand-held transceiver gives you coverage of all international VHF marine channels. Though not completely submersible, the housing is compact and splash proof, specially designed to endure the usual rigours of boating. The antenna is detachable so units can be connected to a larger antenna mounted on a boat. Includes Li-ion rechargeable battery pack, AC adaptor, charging cradle and belt clip.

- 1W/5W switchable output power
- Backlit LCD
- Dual and triple watch function
- Channel scan function
- One-touch emergency channel 16
- Auto power saver mode

12V CAR CHARGER TO SUIT DC-1065/DC-1096

Standard cigarette lighter socket to DC plug. Suitable for charging transceiver models DC-1065 and DC-1096.

- Cable length: 1.2m

	Cat.	Qty 1+		
5W VHF Marine Each	DC-1096	$119.00		
	Cat.	Qty 1+	Qty 5+	Qty 10+
Cigarette Lighter Charger	DC-1099	$17.95	$15.95	$14.35
Spare Battery	DC-1066	$19.95	$17.70	$15.70

UHF TRANSCEIVER ACCESSORIES (CONTINUED)

VOX Headset and Microphone for Transceivers

NEW 2013

Handy VOX headset for use with a variety of our transceivers. Features a clip for securing to your clothes.

Suitable for the following transceivers: DC-1021, DC-1027, DC-1049, DC-1065 & DC-1096

- Standard 3.5mm plug.
- Cable length: 1m

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1056	$14.95	$13.35	$11.70

Hands Free Earpiece with Throat Microphone

The hands free fits snugly in your ear and around your neck blocking out virtually all background noise.

- Cable: 104.5cm long cable
- Suits DC-1021/27/49

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1039	$22.95	$20.35	$18.35

Motorcycle Headset for UHF CB Transceiver

Just plug this mic and speaker headset into the mic/headphone jack on a compatible UHF CB and you have instant hands-free communications. Add a second set and use it as a bike to bike or rider to pillion intercom. Designed to fit into a full-face helmet with the included self-adhesive Velcro® mounts, it can be easily removed from your helmet when not in use.

1 YEAR WARRANTY

Fits inside your helmet

It also has a push-to-talk button that mounts on the handlebar with a sturdy velcro strap and can also be removed when not in use.

Installed Microphone

Compatible with the following UHF CBs: DC-1027 & DC-1049 or can be used with any unit with a mic/ headphone jack.

- Headset cable length: 1.6m
- PTT button cable length:1.3m

Note: Helmet not included (nor is the Stig!)

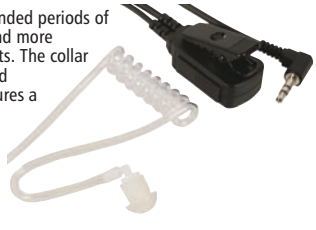
Installed Pushbutton

Installed Earpiece

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1037	$119.00	$106.95	$94.95

Air Tube Headset for Handheld CB Radios

Ideal for people who use CB radios for extended periods of time because the air tube is much lighter and more comfortable than standard earpiece headsets. The collar clip secures the tube without inhibiting head movement and the in-line microphone features a push to talk button and mounting clip. Compatible with handheld UHF CB radios which feature a 3.5mm combination microphone and earpiece plug including many from the range of Digitech handheld radios.



- Compatible Digitech Radios: DC-1021, DC-1027, DC-1049, DC-1065
- Length from CB plug to microphone: 900mm
- Length from microphone to collar clasp: 550mm
- Air Tube Length: 250mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1031	$39.95	$35.90	$31.90

UHF ANTENNAS & ACCESSORIES

UHF 4.5dß Black Whip

Offers at least 4.5dB gain.

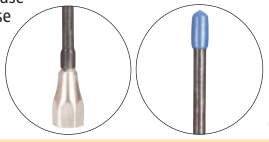
- Black powder coated
- Stainless steel whip
- Length 565mm.
- Suits standard UHF 5/16" base Cat. DC-3062

	Cat.	Qty 1+	Qty 5+	Qty 10+
4.5dB	DC-3074	$22.95	$20.35	$18.35

External UHF Antenna

NEW 2013

For use with our external antenna base (DC-3066) or any other antenna base with suitable connecting thread.



- Operating Frequency: 477MHz
- Gain: 5-6dBi
- Impedance: 50Ohm
- Length: 650mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
5-6dB	DC-3076	$19.95	$17.70	$15.70

UHF External Antenna Base with Cable

NEW 2013

Designed for use with our fixed installation transceiver unit (DC-1120) to enable you to connect an antenna. The antenna base can be mounted to a bracket and the PL259 plug will connect to the UHF unit.

- PL259 connection: 17(Dia.)mm
- RG58 Coax Cable
- Antenna base dimensions: 44(Dia.) x 40(H)mm
- Cable length: 450mm

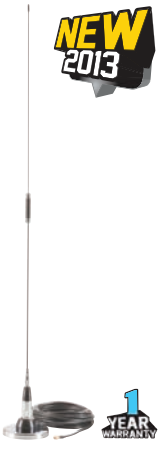
	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-3066	$24.95	$22.35	$19.70

CB Radio Antenna with Base and 5m Cable

NEW 2013

Suitable for boosting the signal to UHF transceivers (such as DC-1065). Features a strong magnetic base allowing it to be mounted to your vehicle with ease.

Specifications	
Frequency	476.425 - 477.400MHz
Gain	4dBi
Antenna Length	750mm
Connector type	SMA (Male)
Cable type	RG58
Cable length	5m
Antenna length	750mm
Base dimensions	43(H) x 85(Dia)mm



1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-1064	$59.95	$53.95	$47.90

Right Angle Bull Bar Bracket Stainless Steel

NEW 2013

This stainless steel bracket will allow you to attach an antenna to your vehicles bull bar to improve reception to your UHF radio. For those who frequently work or travel to remote areas this is ideal.

- Dimensions of L bracket: 56 x 57 x 54mm
- Length of U brackets 72mm
- Material: 304 Grade Stainless steel

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-3077	$14.95	$13.35	$11.70

FIND OUT MORE IN STORE

Our staff can offer friendly and expert advice, from product information to electronics solutions; we're here to help.

UHF 5dßi Fibreglass Antenna with 5m Cable

NEW 2013

Another addition to our antenna range. This model is suitable for cars and trucks using UHF transceivers. The antenna is fibreglass and it features a tough flexible spring base to absorb and deaden the vibrations associated with driving.

Specifications	
Frequency	477MHz for UHF
Cable connector	FME
Gain	5dBi
Length	630mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	DC-3078	$79.95	$71.95	$63.95

UHF Base

Constructed from UV stable polypropylene and a 5/16", 26TPI plated brass bolt.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-3062	$12.95	$11.35	$10.35

Universal CB Base

Standard 5/16" 26TPI low profile base complete with solder lugs for cable connection.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-3060	$6.95	$6.25	$5.50

Trunk Groove Bracket

Suitable for mounting in the groove of your boot or bonnet. Simply lift boot or bonnet and drill two holes and screw down and mount the base, and run cable. A relatively easy way to get on the air without drilling noticeable holes in your panels.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 5+	Qty 10+
	DC-3079	$8.90	$7.95	$6.95

27MHz Helical Whip

High performance helical fibreglass mobile whips designed and manufactured in Australia to suit our rugged conditions. All with standard 5/16" 26TPI thread.

MADE IN AUSTRALIA

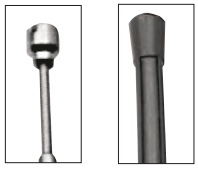
	Cat.	Qty 1+	Qty 4+	Qty 10+
900mm	DC-2030	$16.75	$14.95	$13.35

CAR ANTENNAS & ACCESSORIES

Standard Lockdown

- 4 section
- Extends to 770mm
- Cable length 1.2 metre

1 YEAR WARRANTY

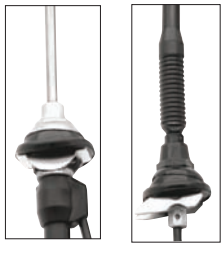


	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-3250	$8.95	$7.95	$6.95

Rubber Topmount

- Small rubber antenna bends when it hits something.
- Good for 4WDs etc.
- 1 section
- Length 350mm
- Cable length 1.2 metre.

1 YEAR WARRANTY



	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-3260	$18.00	$15.95	$14.35

Cat. AR-3250 Cat. AR-3260

Car Aerial Extension

Need a longer aerial lead in your car?

- Standard aerial socket to plug.
- Length: 3 metre

	Cat.	Qty 1+	Qty 4+	Qty 10+
3m	AR-3253	$8.95	$7.95	$6.95

Car Radio Antenna Line Plug

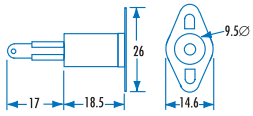
Solder type.

- Standard antenna plug

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-2040	$1.65	$1.45	$1.30

Car Radio Socket Chassis Mount

- Nickel plated



	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-2042	$1.95	$1.75	$1.55

Car Radio Antenna Line Plugs

SOLDERLESS CAR RADIO ANTENNA LINE PLUG

Replacement or connector for new antenna installation.

PP-2044

CAR RADIO ANTENNA LINE PLUG

- Solder type with plastic strain relief.

PP-2041

	Cat.	Qty 1+	Qty 10+	Qty 50+
Solderless	PP-2044	$2.95	$2.60	$2.30
Solder type	PP-2041	$2.50	$2.21	$1.95

Solderless Car Radio Inline Socket

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-2046	$3.95	$3.45	$3.15

Car Radio Antenna Adaptor Plug

Converts Motorola to European style antenna sockets.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-2048	$4.95	$4.45	$3.90

Car Radio Antenna Adaptor Plug

Converts European style antenna plug to Motorola style antenna plug.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-2038	$4.95	$4.45	$3.90

Field Radio Power Supply Box

Makers Name: Alex Nelson
Location: New South Wales

Friends and I combine camping and Amateur radios and I created the supply box to furnish enough power to run several radios at once. I also use it as a power source for an air compressor used to raise a 12 metre high telescopic pneumatic antenna mast.

The system is recharged via a solar panel when not in use. When not playing with radios, I use the supply to run my car fridge via a power outlet on the side of the box. Including a 1200 watt inverter which allows me to use 240 volt appliances if necessary in remote areas.

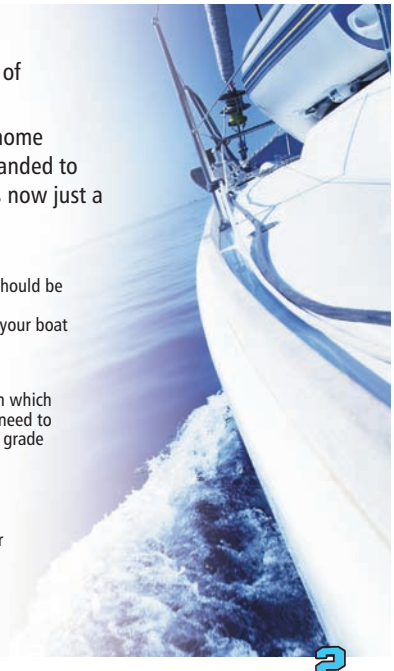
For more details scan the QR code or go to www.jaycar.com.au/makers

Boat Maintenance

BOAT ANTIFOULING SYSTEM

This product is based on the collaborative design between us and "Silicon Chip" magazine.
(See the September 2010 issue of this magazine for a complete preamble and technical description of electronic/ultrasonic antifouling technology.)

The product was originally only available in DIY kit form which limited availablility to experienced home constructors. Even so the kit has been very popular. The scope of the original design has been expanded to include larger vessels. We also have completely manufactured the transducers & all electronics. It is now just a straight forward installation of a built and warranted product.



GENERAL

There seems to be a growing consensus that ultrasonic antifouling systems appear to work very well. With such a system you should be able to avoid the yearly task of slipping the boat and repainting the hull with what has to be a pretty nasty chemical goo called antifouling paint. We estimate that ultrasonic antifouling should reduce this task up to 90%. You will still probably need to slip your boat occasionally to monitor corrosion, replace sacrificial anodes, etc.

WHAT YOU GET WITH THIS PRODUCT

The two and four channel units are almost identical. You get a control box which contains the electronics. You get a wiring loom which includes plenty of cable to locate the transducers. You will also get a comprehensive installation & instruction manual. You will need to do your own wiring for the +12VDC power source. This means you will need to provide a switch, live fuse & 10A rated marine grade wire.

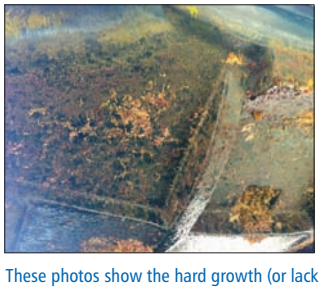
TECHNICAL DESCRIPTION

The central component is a main PCB which consists of a specially programmed micro processor which generates the special frequencies which seriously deter growth of the various organisms that choose to use your boat as a home. The microprocessor and associated circuit has a special low battery detect feature. If the battery powering this unit falls below a threshold voltage the unit turns itself off. This prevents the battery becoming totally flat. Flat batteries quickly sulphate up and are generally a write-off after that. It is therefore important to have a regular battery charge on your boat. (The best of course is permanent connection to shore power or solar or wind turbine alternator boost.) The central circuit drives up to four ultrasonic transducers which are firmly attached to the hull. Generally two transducers will do for a boat up 12m and four for a boat up to say 22m.

Two Antifouling models available:

2 YEAR WARRANTY

The photographs shown below are from a customer's 22ft boat using the kit version of the antifouling system shown above (except he was only using "ONE" transducer). In the customer's post on a popular yachting blog, he explains that the photos were taken eleven months after the hull was cleaned of hard and heavy growth, and twenty one months after the boat's last antifouling. There was no hard growth, and the soft growth that is visible in the photographs could be easily removed with a soft nailbrush! Overall the customer was extremely happy with the result and believes the system has already paid for itself. If you want to read the article for yourself visit http://bit.ly/ybhreview



"The result was so good, I nearly cried." These photos show the hard growth (or lack of) nearly 2 years after the boats last antifouling. Photos courtesy of Dr Parmegiani

	Cat.	Qty 1+	Qty 3+	Qty 6+
Dual Version	YS-5600	$899.00	$809.00	$719.00
Quad Version	YS-5602	$1,199.00	$1,079.00	$959.00

Full installation, intro video & user manuals available on website.

WATCH VIDEO

MARINE SPEAKERS

5" & 6.5" Marine Coaxial Speaker

A pair of marine worthy speakers designed to withstand the demands of ocean use and provide excellent audio quality in your boat. Both models feature high salt and UV resistance and are fully splash proof thanks to the special indented design.

Two models available:

5" MARINE COAXIAL SPEAKER
CS-2410

6.5" MARINE COAXIAL SPEAKER
CS-2412

CS-2412

CS-2410

Specifications	CS-2410	CS-2412
Frequency	80-20KHz	65-20KHz
Sensitivity	88dB/W/M	89dB/W/M
Max Power	100W	120W
Magnet	5.3 oz	10oz
Voice Coil	25mm	25mm
Impedance	4 ohms	4 ohms
Woofer	Injection Cone	Injection Cone
Midrange and Tweeter	30mm Mylar Dome Tweeter	35mm Mylar Dome Tweeter
Dimensions - See page 79 for dimensions chart	A=150mm, B=135mm, C=111mm, D=45mm	A=180mm, B=164mm, C=128mm, D=60mm

		Cat.	Qty 1+	Qty 4+	Qty 10+
5"	Pair	CS-2410	$34.95	$31.45	$27.90
6.5"	Pair	CS-2412	$44.95	$40.45	$35.90

MARINE RADIOS

Marine AM/FM Radio with MP3 Player

An attractive marine radio perfect for your boat but can be used for automotive purposes. In addition to standard AM/FM radio the front panel includes USB & SD card slots which allow playback of MP3s. There's also a 3.5mm auxiliary port so you can connect an iPod, headphones, or Smartphone for playing back music. The unit can be controlled with the infrared remote or front panel interface. For audio tinkerers, a myriad of settings are available including bass, treble, balance, and fade settings. There are also rock, pop, and classical equalisation pre-sets to suit your taste in music. Installation is straightforward, just connect via the supplied 14pin plug, all speaker cables are labelled to streamline the install. The USB, SD card and AUX sockets all come with splash proof silicone covers.

• For full specifications see page 219.

Cat.	Qty 1+	Qty 2+	Qty 4+
QM-3815	$89.95	$80.95	$71.95

Marine Radio & 5" Marine Speaker Deal

Combines our Marine Radio with our 5" Marine Speakers.

QM-3815

CS-2410

RELATED PRODUCT...
More info on each individual product is shown above

	Cat.	Qty 1+	Qty 2+	Qty 4+
Marine Radio & 5" Speakers	QM-3816	$99.00	$88.95	$78.95

Marine Radio & 6.5" Marine Speaker Deal

Combines our Marine Radio and our 6.5" Marine Speakers.

QM-3815

CS-2412

RELATED PRODUCT...
More info on each individual product is shown above

	Cat.	Qty 1+	Qty 2+	Qty 4+
Marine Radio & 6.5" Speakers	QM-3817	$109.00	$97.95	$86.95

Naval Style Communications Speaker with Gymbol Mount

This small but powerful unit delivers clear voice from either VHF, 27MHz or even HF communications receivers. It features a no-nonsense naval style in a light grey. It is very close to waterproof, in that the speaker cone is Mylar, the bezel is gasketed and the cord entry is IP65.

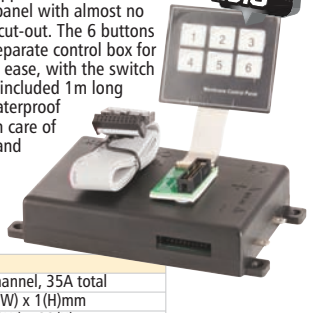
Don't let the small dimensions fool you - it is a full 4W rated unit.

Specifications	
Power handling	2.25WRMS
Power Max	5W
Impedance	8Ohm
Freq range	320Hz - 4,500kHz
Sensitivity	88dB/m
Dimensions	66(L) x 66(W) x 55(H)mm
Weight	185g
2.2m cable terminated to a 3.5 plug	
Bezel dimensions	65mm square, 55 deep

Cat.	Qty 1+	Qty 3+	Qty 6+
AS-3186	$24.95	$22.35	$19.70

6 Way Membrane Switch Panel with Relay Box

An ultra compact 6-way 12VDC touch control panel to control devices in automotive, camping, or marine applications. It features an ultra thin and flexible membrane switch panel with almost no mounting depth requiring only a very small cut-out. The 6 buttons on the switch panel control 6 relays in the separate control box for switching on/off any connected devices with ease, with the switch panel connecting to the control box with an included 1m long ribbon cable. This gives you a completely waterproof (IP67) switch panel, with all the wiring taken care of behind your dash/panel, resulting in a neat and unobtrusive 6-way switch interface.



- IP67 rating on the switch panel
- Built-in resettable fuses

Specifications	
Max current	10A per channel, 35A total
Touch Panel Dimensions	70(L) x 63(W) x 1(H)mm
Membrane Control Box Dimensions	135(L) x 90(W) x 33(H)mm

Cat.	Qty 1+	Qty 10+	Qty 25+
SP-0900	$99.95	$89.95	$79.95

Marine & Outdoor Products

WATERPROOF BLUETOOTH® SPEAKER

Rechargeable Waterproof Bluetooth® Speaker

NEW 2013

1 YEAR WARRANTY

iPod® Not included

A rugged, fully waterproof speaker for summer days at the beach, river, or when you're camping. Simply pair it with your Bluetooth® enabled Smartphone and you can play back music with ease. You can even have phone conversations through the speaker thanks to the in-built microphone. For those who are without Bluetooth®, there's a 3.5mm aux jack at the rear. Black shock resistant rubberised edges and handles make this a perfect companion for outdoor activities. Recharge with the supplied mains adaptor and USB cable.

- Fully waterproof shock resistant design
- Integrated full range stereo speakers
- Stainless steel speaker grill cover
- Built in rechargeable Lithium battery 7.4V 1800mAh 10 hour play or talk time
- 3W class D amplifier
- Built in mic with noise cancelling
- Hands free speakerphone
- Dimensions: 230(L) x 102(W) x 67(D)mm

NOTE!
IT FLOATS!

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5208	$119.00	$106.95	$94.95

RELATED PRODUCT...
See pages 236 & 237 for Marine Lighting

MARINE TORCHES

NEW 2013

3 x Olson Osram LED Torch

A sturdy quality torch for your next camping trip or fishing adventure. Equipped with 3 ultra bright Osram Oslon LEDs, matched with a special reflector to produce a focused beam capable of lighting up long distances. The base features a fold-out hook for attaching to your bag or hanging in your tent. Both the base and lens end are o-ring sealed allowing the torch to float in water.

- Requires 2 x D batteries
- Dimensions: 215(L) x 71(Dia.)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3487	$29.95	$26.90	$23.70

30m Underwater Luxeon LED Powered Diving Torch

Bringing a torch on your diving expedition is a necessity and this one has the features you need. It's encased in a tough, chemical resistant and corrosion proof fluorescent composite yellow body and will blast out a pounding 250 lumens of white light. The torch features an on-off twist switch to prevent accidental engagement in tight corners and a carrying strap so you don't drop it into an oceanic chasm.

- Deep special rippled handle for maximum grip and comfort
- 1 x Luxeon Rebel 100 White LED
- Waterproof

Specifications	
Light output	35 hrs (max output)
Batteries	2 x C required
Size	182(L) x 89(W)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
250	ST-3459	$29.95	$26.90	$23.70

MARINE DISTRESS LIGHTS

Survivor Distress LED Light

A handy safety device that is a must when you are venturing out in open water. Unit is small, lightweight with a lanyard and clip for easy attachment to any life jacket or clothing. The bright LED distress light activates automatically when submerged in water.

- Water activated
- Lanyard and clip easy to be attached in any of life vest
- Waterproof construction
- Battery replaceable
- Battery Life: up to 100 hours

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3230	$6.95	$6.25	$5.50

Floating LED Strobe Light Flare

NEW 2013

An essential safety device for boating enthusiasts or those who place themselves in situations of vast isolation. This LED flare is waterproof and will float vertically so the lens end sits above water. It also features a strong magnetic base so will sit securely on body of a car in the event of an emergency.

- Burn time: 72 hours
- Requires 2 x AAA batteries
- Dimensions: 158(H) x 36(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3231	$19.95	$17.70	$15.70

4 LED Marine Strobe Light

NEW 2013

Ideal for marine use to ensure your vessel stays visible at night or in poor light. Features a light sensor under the lens so it stays on at night and auto-switches off during the day. The base end has a standard marine mounting thread for attaching to a buoy or boating device. Also great for night road work, camping, hiking, mountain climbing etc.

- Requires 2 x D batteries
- Burn time: 360 hours
- Dimensions: 230(H) x 52(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3232	$34.95	$31.45	$27.90

DIVING MASK WITH CAMERA

Diving Mask with Digital Camera 2GB

Going snorkelling in the Great Barrier Reef or just your local beach or river? You'd forever live in regret if you didn't take a few snapshots. This can be difficult multi-tasking between swimming and not dropping the camera into the dark depths of the ocean. Strap on this diving mask with a built-in digital camera and you can swim freely, take up to 2300 digital photos or 2 hours of video. You can also take the camera off the mask and use separately. Tempered glass lens and a PVC frame make the mask highly durable. It also has an adjustable strap and a silicone gasket so it fits comfortably on your face.

- Rated for 15m depth
- Video or still photos
- 5MP sensor
- LED flash
- Pop-up Viewfinder
- USB 2.0 high speed interface
- Digital/Icon LCD screen

Close-up of camera lens

Specifications	
Power	3.7V Li-ion battery
Resolution	2592 x 1945
Image format	JPEG
Video format	AVI
Memory	2GB
Battery life	3 hours

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	QC-3186	$99.00	$88.95	$78.95

CAP MOUNT TORCH

160 Lumen Cap Mount CREE® LED Torch

This super bright head torch clips onto your hat or cap, which frees up your hands to take on other tasks whilst providing you with light. Use the high intensity adjustable light beam to direct the light and focus with either a spot light or flood beam.

Specifications	
Burn time	4 hours
Bulb type	CREE 3W
Output	160 lumen
Water resistant	No
Batteries	3 x AAA (not included)
Dimensions	93(L) x 55(W) x 25(Dia)mm

Cap not included

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
160	ST-3291	$12.95	$11.35	$10.35

LED HEAD TORCHES

40 Lumen 12 LED Head Torch

A straight forward head torch without all the 'bells and whistles'. The unit has a total of 12 LEDs which can be switched to various intensities: 4 LEDs, 8 LEDs, 12 LEDs or strobing. It is light, compact, very efficient on batteries and comes with a fully adjustable head strap.

- Requires 3 x AAA batteries (not included)

Specifications	
Light Output (lumens)	40
Burn time	15-20 hrs
Light modes	Low, medium, high, flashing
Water resistant	No
Batteries	3 x AAA (not included)

RELATED PRODUCT...

Also see our Bike Head Torch on page 258

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
40	ST-3286	$9.95	$8.75	$7.75

180 Lumen CREE® LED Adjustable Head Torch

CREE® LEDs are the last word in illumination and 3W of power will really light up your world. Three modes of operation - high, low and strobe. The beam can be focused quickly from wide to spot by simply sliding the zoom in or out. Comfortable elasticised head strap. Camping, caving, fishing etc.

Specifications	
Light Output (lumens)	180/80 lumens
Burn time	8hrs
Light modes	High, low, strobe
Water resistant	Yes
Batteries	3 x AAA (not included)
Weight	105g with batteries

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
180	ST-3279	$29.95	$26.90	$23.70

150 Lumen 3W CREE® LED Head Torch

Conquer a variety of outdoor trails at night with this 3W CREE® LED powered multi-function head torch. Set the beam wide to see objects immediately in front of you or narrow to see objects farther away. You can even change the angle of your light as you move up or down an incline. If you happen to find yourself in an emergency situation, toggle on the strobe light to draw attention to yourself. Dim the light for activities in and around your campsite and to conserve battery power. There is also a tail light built into the battery compartment to increase your visibility by others. The included rechargeable battery makes this torch an indispensable travel partner.

Specifications	
Light Output (lumens)	Up to 150 lumens
Burn time	4 - 5 hours Light
Modes	High, dim, flashing
Water resistant	No
Batteries	Rechargeable 18650 Li-ion battery included

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
150	ST-3297	$39.95	$35.90	$31.90

CREE® LED TORCHES

CREE® LED powered torches have made a name for themselves as being able to produce powerful white light without the excessive power consumption. The revolutionary design of CREE® LEDs gives torch enthusiasts great versatility. They will start in sub-zero temperatures and last for thousands of hours.

This range of CREE® LED torches are all encased in rugged aircraft-grade aluminium that will withstand the rigours of constant use. Tactile switches are standard allowing for momentary on lighting, perfect for signalling across distances in poor light or for quickly checking a map.

Specifications		
Cat.	ST-3452	ST-3454
Light Output (Lumens)	90	170
Burn Time	1 hour	1 hour
Dimensions	95(L) x 20.5(Dia.)mm	147(L) x 20.5(Dia.)mm
Battery (required)	1 x AA Battery	2 x AA batteries
Light modes	Max, medium, low, SOS, Blinking	Max, medium, low, SOS, Blinking
Accessories	Carrying Strap	Carrying Strap

Specifications		
Cat.	ST-3456	ST-3475
Light Output (Lumens)	190	480
Burn Time	2.4 hours	4h/high, 8h/medium, 24h/low
Dimensions	105(L) x 34(Dia.)mm	118(L) x 37(Dia.)mm
Battery (required)	3 x AAA, batteries	3 x AAA batteries (not included)
Light modes	Max, medium, low, SOS, Blinking	5W, 2.5W, 0.5W, SOS, Strobe
Accessories	Carrying Strap	Carrying Strap

90 LUMEN CREE® LED POWERED TORCH

- Splash Resistant

Cat ST-3452

190 LUMEN CREE® LED POWERED TORCH WITH ADJUSTABLE LENS

- 190 lumens
- Tactical switch
- Multiple light modes
- Adjustable beam

Cat ST-3456

170 LUMEN CREE® LED POWERED TORCH

- Splash Resistant

Cat ST-3454

480 LUMEN 5W CREE® LED TORCH

- CREE® XM-L T6 LED produces a impressive 480 lumens
- IP65 weatherproof rating
- Aircraft-grade aluminium
- Adjust beam light up to 200 metres away.
- Weight 107g without battery

Cat ST-3475

On these CREE® torches

Lumens		Cat.	Qty 1+	Qty 5+	Qty 10+
90		ST-3452	$17.95	$15.95	$14.35
170		ST-3454	$19.95	$17.70	$15.70
190 Adjustable Lens		ST-3456	$24.95	$22.35	$19.70
480 Adjustable Lens	NEW	ST-3475	$34.95	$31.45	$27.90

CREE® LED Torches

CREE® LED TORCHES (CONTINUED)

250 Lumen CREE® LED Torch with Adjustable Beam

High powered 250 lumen CREE® LED torch with a fully adjustable beam spread. The thick convex lens creates a sharp, perfectly circular projection. The lens is designed in such a way as to create two concentric circles where the outer circle of light is brighter than the inner. Twist the grip at the head of the torch clockwise to focus the beam on an object up to 200m away or anti-clockwise for a wide beam to light up your immediate vicinity. Extrusions down the shaft of the torch make for a solid grip. Finished in black with a tactical switch for mode adjustment.

Specifications	
Light Output (lumens)	250 lumens
Battery (Required)	3 x D batteries
Burn time	3 hours
Light modes	High, medium, low, strobe, SOS
Dimensions	250(L) x 54(Dia)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
250	ST-3455	$29.95	$26.90	$23.70

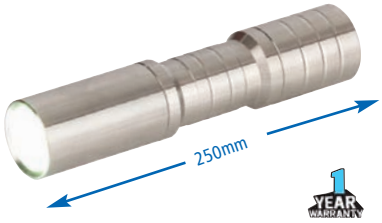
500 Lumen Stainless Steel CREE® Rechargeable LED Torch

NEW 2013

A powerful compact sized torch to suit the harshest of environments. The IP65 solidly built body is made from stainless steel 304 material and only measures 96mm in length. Complimented with a super bright CREE® XML T6 LED, it produces a blinding 500 lumens of bright light up to 100m in distances. Inside the torch is a rechargeable Li-ion battery that has a run time of up to 3 hours (low power setting). Comes with a 240VAC mains battery charger.

Specifications	
Light Output (Lumens)	500 lumens
Burn Time	40mins High, 3hrs Low and 1.5hrs flashing
Light modes	High, low and flashing
Battery	14500 Li-ion rechargeable included
IP Rating	65
Dimensions	96(L) x 18(Dia.)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
500	ST-3488	$59.95	$53.95	$47.90



CREE® XM-L Rechargeable Torches

NEW 2013

Tough, military grade torches featuring the CREE® XM-L LED for superior light efficiency and brightness. This LED boasts a 20% efficiency improvement over CREE® XP-G LEDs. The build quality is superb with comfortable grip indentations throughout the body and both models are o-ring sealed to protect against water, dust, and grime. The aluminium alloy reflector creates a smooth optimized beam. They come with 2 x rechargeable Li-ion batteries each which can be recharged from the supplied mains charger.

Two models available:

750 LUMEN CREE® XM-L RECHARGEABLE TORCH
ST-3482

2,500 LUMEN 3 X CREE® XM-L RECHARGEABLE TORCH
ST-3484

- Features 3 x CREE® XM-L LEDs which punch out a massive 2500 Lumen output.

CREE LED Light

Specifications	ST-3482
Light Output (lumens)	750
Burn time	3 hours
Includes	2 x Li-ion 18650 3200mAh 3.7V rechargeable batteries
Light modes	High, medium, low, flashing, SOS
Accessories	Carrying strap
Dimensions	230(L) x 55(Dia.)mm

Specifications	ST-3484
Light Output (lumens)	2500
Burn time	2 hours
Includes	2 x Li-ion 18650 2200mAh 3.7V rechargeable batteries
Light modes	High, medium, low, flashing, SOS
Accessories	Carrying strap
Dimensions	220(L) x 55(Dia.)mm

Lumens		Cat.	Qty 1+	Qty 5+	Qty 10+
750	Rechargable	ST-3482	$59.95	$53.95	$47.90
2,500	Rechargable	ST-3484	$119.00	$106.95	$94.95

HIGH POWER HID TORCH

2500 Lumen 24W HID Torch

This extremely powerful HID torch outputs a blinding 2500 lumens of brightness, all built into a compact, machined aircraft grade aluminium housing with anodised black finish. The included 2200mAh Li-ion battery provides up to 40 minutes of burn time, and also features three built-in white LED's so you are never left in the dark if the battery is unable to power the HID torch. It is supplied in an aluminium case which holds the torch, rechargeable battery, mains and cigarette lighter chargers.

- Spare Li-ion Battery to suit available

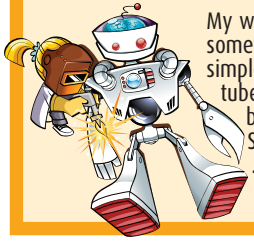
Specifications	
Output	2500 lumens
Burn time	40 minutes
Batteries	2200mAh
Dimensions	235(L) x 70(Dia)mm

Type	Cat.	Qty 1+	Qty 5+	Qty 10+
2,500 HID Torch	ST-3361	$169.00	$151.95	$134.95
Spare Li-ion Battery	ST-3373	$49.95	$44.90	$39.90
Spare HID Globe **NEW**	ST-3375	$19.95	$17.70	$15.70

RELATED PRODUCT...
For LED Hand Spotlight page 260

John Deere Cake

Makers Name: David Shine **Location: Western Australia**



My wife has a cake making business and wanted to do something special for my father's 70th birthday. Something simple as adding a couple of Jaycar Maddington LED lights, tube, wires and a hidden toggle switch under the base board really finished off the centre piece of the night. Something simple, but not often done in a cake. ...I hope you like it.

For more details scan the QR code or go to www.jaycar.com.au/makers

LED TORCHES

1 Watt 14 LED Torch

Bright LED torch with machined aluminium body. Robust and O-ring sealed for maximum protection.

- 1 Watt
- Requires 3 x AAA batteries.
- Dimensions: 119(L) x 33(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
1W	ST-3393	$9.95	$8.75	$7.75

6 x Olson Osram LED Torch

NEW 2013

High brightness torch featuring 6 x ultra bright warm white Olson Osram LEDs. Great addition to your fishing tackle box or keep one in the car for emergency situations. Bright yellow plastic so it doesn't go missing.

- Requires 4 x AA batteries
- Dimensions: 190(L) x 60(Dia.)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3486	$19.95	$17.70	$15.70

LED TORCH KIT

120 Lumen LED Torch Kit

Configure the light in any of three different ways: a hand-held torch, headlamp or a handy lantern. The head torch comes with its own battery pack and head band and the lantern makes the ideal tent light for camping.

- Lanyard and tripod included.

Specifications	
Batteries	1 x CR123A, 2 x AA (not included)
Output	120 lumens
Torch	98(L)mm

NEW LOWER PRICE

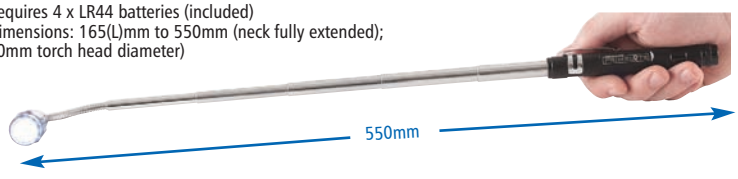
Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
120	ST-3391	$39.95	$35.90	$31.90

SPECIALTY LED TORCHES

Super Bright LED Torch with Magnetic Head and Telescopic Neck

A pen-sized torch with super bright LEDs and magnetic head for picking up objects. The torch head is attached to a telescopic mast hidden away inside the casing. Fully extended the torch has a total length of 546mm allowing your search into cracks and crevices. A gooseneck at the end allows you to shine light around corners and pick up metallic objects out of reach.

- Requires 4 x LR44 batteries (included)
- Dimensions: 165(L)mm to 550mm (neck fully extended); 20mm torch head diameter)



NEW LOWER PRICE

Cat.	Qty 1+	Qty 5+	Qty 10+
ST-3463	$12.95	$11.35	$10.35

150 Lumen Torch with Gooseneck & Magnetic Base

A tough & handy LED work light suitable for use at home, in the car, garage and even the office. Position the light exactly where you need it with flexible tube & powerful magnetic base, the high powered 3W LED will emit a very bright focused beam.

- Aluminium build, designed to last.

NEW LOWER PRICE

1 YEAR WARRANTY

Specifications	
Output	150 lumens
Burn time	15 hours
Water resistant	Yes
Batteries	3 x AA (not included)
Dimensions	35(D) x 180(L)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
ST-3460	$44.95	$40.45	$35.90

LED Lighting Rod

Features 72 high brightness SMD3528 LEDs with multiple light modes, including high, medium, low as well red on and red flashing for emergencies. The translucent LED cover disperses the light so well it feels like you're holding a solid beam of illumination. Great for checking car engines, under tables, behind the computer, or even for night time traffic control and nightclub security work. The pushbutton switch allows for momentary on so can flash the white light at any interval (useful for Morse code or other long distance communication). Features a mains charger and rubber stand.

Specifications	
Light modes	White (High, medium low), Red (on, flashing)
Lumens	350-450
Power	3.5W
Battery	Embedded Li-ion battery
Charge time	180 mins
Burn time	120 mins, 210 mins on red flashing mode
LED colour	5500-6500K (white)
Contains	72 SMD 3528 LEDs
Accessories	Rubber stand, carrying strap
Dimensions	300(L) x 30(Dia.)mm

NEW 2013

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
ST-3265	$69.95	$62.95	$55.95

LED Flashlight with HD Video Camera

A compact HD video camera with a built-in LED flashlight. Video can be recorded at 720p and the LEDs enable night time and low-light condition recording. Its compact size and features make it a handy tool for security guards or even for home surveillance applications. The added mounting bracket is great for recording while mountain biking or the occasional night time ghost walk.

It also takes photos, accepts a MicroSD (up to 32GB) card and can be used as a USB storage device. Includes rechargeable battery.

NEW LOWER PRICE

1 YEAR WARRANTY

Specifications	
Recording format	AVI
Frame rate	30fps
Recording time	up to 4 hours
Video compression	MJPEG
Dimensions	111(L) x 32(D)mm

Cat.	Qty 1+
QC-8010	$49.95

BATTERY POWERED LAMPS

Multifunction LED Lamp and Torch

Adjust light with the flexible goose neck & clamp onto table tops up to 25mm thick. A versatile light source great for reading in the bedroom, shed or on your next BBQ. It also doubles as a detachable hand torch.

- 3 x ultra bright white LED
- Requires 3 x AA batteries
- Torch dimensions: 165(L) x 40(W)mm
- Stand dimensions: 190(H) x 120(W)mm

NEW LOWER PRICE

1 YEAR WARRANTY

RELATED PRODUCT...
See LED Table Lamp on page 379

Cat.	Qty 1+	Qty 3+	Qty 6+
ST-3462	$17.95	$15.95	$14.35

Green Power Torches & Radios

GREEN POWERED TORCHES

Dynamo Solar LED Torch

Just a few cranks on the handle of this torch and it will give you a super bright light. It also features a solar panel to keep the torch charged and ready for use. The built-in hi-efficiency lithium battery allows you to charge over and over again. The batteries don't need to be replaced just wind to recharge.

- Dimensions: 150(L) x 50(W) x 30(D)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3345	$14.95	$13.35	$11.70

3 LED Torch with AM/FM Radio & Dynamo Charger

NEW 2013

A handy rechargeable torch to keep in the glove box for emergencies or to take on a camping trip. Features 3 bright white LEDs, an AM/FM radio, as well as a personal alarm to attract attention. It's also lined with a strip of luminescent material so will glow in the dark. Charge by turning the dynamo handle or with a micro-B USB cable. No need to worry about batteries. The micro-B USB port doubles as a way to charge the torch and to charge external devices such as Smartphones. The radio station frequency is displayed on a red digital display.

- Internal rechargeable Li-Po battery
- Included adaptors: 1 x USB MicroB, 1 x USB MiniB, 1 x Nokia Plug
- Dimensions: 136(L) x 48(W) x 34(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	ST-3357	$29.95	$26.90	$23.70

Multi-Function Dynamo Torch with Igniter

NEW 2013

The ideal accessory for camping, hiking and emergency situations. It's a torch, mobile phone charger, compass, whistle, and a windproof igniter for starting camp fires. Includes carabiner to attach to your bag or gear and doesn't need batteries - simply crank the dynamo handle to generate power.

- Dimensions: 105(L) x 52(W) x 34(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3341	$19.95	$17.70	$15.70

3W LED Torch with Solar Recharging Compartment

A powerful 3W Nichia LED torch that can be charged from the solar compartment. For camping and long trips away from mains power the ability to solar charge your torch is very handy. The torch slides into the compartment and is then sealed with a screw on lid. Leave the compartment on the dashboard of your car to recharge its battery then slide the torch out when ready to use. The charging compartment has test and charge LED indicators.

Specifications	
Power	3W
LED	Nichia (Japanese made)
Batteries	1 x 3.2V 1200mAh Li-ion rechargeable battery (included)
Lumens	150
Burn time	2.5 hours
Water resistant	Yes
Recharge time	8 hours
Solar panel type	Amorphous
Torch dimensions	166(L) x 34(Dia)mm
Solar compartment dimensions	198(L) x 55(H) x 95(D)mm

CRAZY CLEARANCE

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+
150	ST-3469	$29.95

LED Torch/Radio/USB Charger Dynamo with Built-in Solar Panel

NEW 2013

A handy emergency LED torch/radio/mobile phone charger, suitable for camping or general outdoor use. Charge the internal battery using a USB power source; built-in solar panel; or hand crank dynamo. Tune into emergency broadcasts or regular radio stations by adjusting the telescopic antenna and the tuning dial; the radio supports AM/FM and three Short Wave frequencies.

- Dimensions: 135(L) x 64(W) x 40(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	ST-3358	$39.95	$35.90	$31.90

Dynamo Torch with Radio, Clock & Emergency Alarm

Featuring full clock alarm functions, AM/FM radio, a three high intensity LED torch and a four LED reading lamp that can all be powered by manual hand crank (dynamo), batteries or external power supply. Also features a siren for emergency situations, 3.5mm headphone jack, external mobile phone battery charger, battery low LED indicator, digital tuning, a large LCD with an orange LED backlight.

NEW LOWER PRICE

1 YEAR WARRANTY

- Approximately 5 minutes of cranking will fully charge the internal battery.

Specifications	
Power	External AC Adaptor DC 6V 200mA
Battery	3 x AA batteries (use SB2416)
Internal Rechargeable Battery	Ni-Cd 3.6V 300mAh
Antenna	250mm telescopic antenna (FM) In-built ferrite (AA)
Headphone Jack	3.5mm stereo
External Mobile Phone Charger	5VDC
Dimensions	200(W) x 130(H) x 75(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3352	$49.95	$44.90	$39.90

Dynamo Multifunction Torch/ Music Player/Radio/Phone Charger

NEW 2013

Perfect gadget for your next camping, road trip, and other outdoor activities. Crank the dynamo handle for power and you have a torch, music player, AM/FM radio and Smartphone charger! It also features 4 red LEDs that act as a beacon and a siren in case of emergency. You can also plug in a USB flash drive or SD card for playing back your selection of MP3s. Navigate through your playlist with the top buttons. The unit features an internal rechargeable 1000mAH battery that can be charged by cranking the handle or from a mains charger (not included). For further power redundancy it also accommodates 4 x AA batteries. Perfect for you next camping, road trip, or remote island stranding.

- Built-in 1000mAH 3.7V Li-po battery
- 3.5mm socket for headphones
- 3.5mm socket for output
- Can take 4 x AA batteries for further power redundancy
- High brightness 4 x LED flashlight
- High brightness 4 x RED led emergency beacon
- Includes 3.5mm to USB cable
- Charging time: 5 hours from mains adaptor (mains charger not included, requires 5VDC 500mA charger)
- Included adaptors to suit USB cable
  1 x USB Micro B
  1 x USB Mini B
  2 x Nokia Plugs
- Dimensions: 190(L) x 125(W) x 90(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3356	$59.95	$53.95	$47.90

GREEN POWERED LAMP

100 Lumen Solar Charged Multi-Purpose LED Lamp

For your next camping adventure don't pack many lights, just pack one. The lamp doubles up as a lantern or a pendant light (hang it off branches or tent ceilings). Convert the handle to a stand and use it as a desk lamp. Take a hike at night with 100 lumens of illumination by your side or dim the light for chores in and around your campsite. Charge the internal Li-ion battery by connecting your lamp to the supplied solar panel.

NEW 2013

1 YEAR WARRANTY

Specifications	
Solar panel	1.7W 6V 280mA
Built-in 3.7V 2200mAh Li-ion battery	
LED power	1W, 16pcs
LED colour temperature	6000 - 6500K
Solar charging time	8 hours
Light on	100% 8 hrs and 50% 16 hrs
Dimension (without bracket)	107(L) x 75(Dia.)mm
Dimensions (with bracket)	172(L) x 100(W) x 75(Dia.)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
100	SL-2701	$39.95	$35.90	$31.90

LANTERNS

"Gas Mantle Look" LED Tent/Indoor Lamp

Perfect for camping, fishing or 4WD adventures this compact lamp opens to reveal a lampshade-like diffuser equipped with a powerful 1W LED. Battery operated, it collapses flat when not in use (saving valuable space) and can be used as a flashlight. The nifty delay turn on switch prevents the unit from switching on accidentally when stowed. With a collapsible hook allowing It to be hung in a tent or caravan, this lantern is a great addition to any outdoor adventure!

NEW 2013

- Requires 3 x AA (not supplied)
- Dimensions: 85(Dia.) x 45mm (collapsed)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	SL-2717	$14.95	$13.35	$11.70

80 Lumen 4 Mode LED Lantern

Innovative outdoor lantern with ultra bright LED. Great for any outdoor adventure or camping trip. Weatherproof design with 4 modes, featuring 3 different light functions & a flashing mode. Stands on flat surface or use the attached metal hook to hang the lantern anywhere.

1 YEAR WARRANTY

- 4 modes: High, medium, low & flashing
- 6 x ultra bright white LEDs
- Output: 80 lumens
- Burn time: 20 hours (steady) 40 hours (flashing)
- Requires 3 x AA batteries
- Dimensions: 150(H) x 85(W)mm

Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
80	ST-3123	$19.95	$17.70	$15.70

0.5W Rechargeable LED Lantern

Super bright LED lantern with brightness control is Ideal for home use, outdoor sports and camping etc. Being weatherproof it is suited for emergency situations or during periods of extreme climate conditions where lighting is essential. Supplied with cigarette lighter socket, mini USB cable and 3xAAA rechargeable batteries.

- 360° rotating mode switch
- 6 x LED Lantern
- Lantern mode to 100 or 50%
- Safety strobe light
- 0.5W LED Torch
- Weatherproof
- Dimensions: 62(L) x 140(H) x 31(D)mm

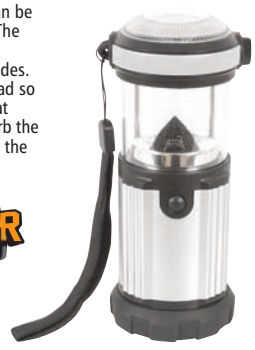
NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
	ST-3121	$19.95

3W LED Torch/Lantern Combo

If you're heading into the wilderness, a torch that can be configured as a lantern is an incredibly useful tool. The lens end of this torch has a knob that when rotated swivels the LED between directional and lantern modes. The convex LED is designed for maximum light spread so you don't always need to sit in the beam to see what you're doing. Features a rubber edged base to absorb the occasional knock and a rotatable hook to hang from the top of your tent, a branch or around the campsite.



NEW LOWER PRICE

1 YEAR WARRANTY

Specifications	
Power	3W
Lumens	140
Burn time	10 hours
Water resistant	Yes
Light modes	Low, High, Flashing
Batteries	4 x AA (not included)
Accessories	Carrying strap
Dimensions	153(L)mm x 62(Dia)mm

Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
140	ST-3135	$19.95	$17.70	$15.70

KEYRING TORCHES

Mini LED Keyring Torch

This keyring torch contain a LED to produce a bright light at a touch of a button. Great for parties & discos.

1 YEAR WARRANTY

- Uses 3 x 1.5V silver oxide 392 included (replacement batteries use our SB-2502)
- Dimensions: 45(D) x 10(W) x 10(H)mm

	Cat.	Qty 1+
White	ST-3382	$2.95

Mini Keyring LED

Convenient little LED torch to attach to your set of keys. Great for finding a keyhole in the darkness. Includes 2 bright white LEDs.

NEW 2013

1 YEAR WARRANTY

- Includes 1 x CR1620 battery
- Dimensions: 50(L) x 27(W) x 9(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3381	$3.95	$3.45	$3.15

Solar Powered Keyring Torch - 2 LED

A handy keyring torch that will never let you down. The twin hi-brightness LEDs are powered by internal Ni-Cd batteries that are kept topped up by the keyring's built-in solar cell. Just a few minutes exposure per day will keep the torch fully charged and ready for immediate use.

- Approx 70mm long.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3385	$9.95	$8.75	$7.75

Laser Pointer Keyring

This laser keyring pointer is chrome plated, and has a key chain attached.

- Uses 3 x LR44 batteries included.
- Size, only 70mm long x 13mm dia.
- Wavelength 650nm
- Max output < 1mW

This laser pointer has passed Australian Standards for laser pointers. AS/NZS 2211.1:1997.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3102	$14.95	$13.35	$11.70

JAYCAR ENVIRO-BAG

Free with any purchase over $50

Two sizes available!

Bicycle Safety Lights & Work Lights

BIKE, CYCLE & SAFETY LIGHTS

Bright Bicycle Rear Safety Light

- 5 super bright LEDs
- Up to 150 hour run time
- 6 light modes
- Mount using multi-purpose bracket or belt clip
- Quick release bracket
- 2 x AAA batteries required
- Dimensions: 68(L) x 40(H) x 25(W)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3061	$6.95	$6.25	$5.50

Flexible LED Safety Lights - Pair

A pair of handy press-down LEDs that have two modes of operation, blinking and constant on. A great little accessory to enhance your personal safety while riding a bike at night. Each LED is encased in flexible silicone that can be wrapped around bicycle handlebars or a helm strap.

- Each unit includes 1 x CR2032 battery
- Dimensions: 75(L) x 29(W) x 29(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3136	$9.95	$8.75	$7.75

Super High Brightness LED Bike Safety Light

NEW 2013

Mount this light on your bicycle to be seen and to be safe. This light features 10 LEDs in two rows of 5. Each row of LEDs can be controlled individually. Row light modes include steady on, flashing, and fast/slow light oscillation. Or alternated, so one row can be steady on while the other row is flashing or any combination of the functions. It also includes an internal reflector which helps intensify the brightness of the LEDs.

- Requires 2 x AA batteries
- Dimensions: 95(L) x 85(W) x 40(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3083	$9.95	$8.75	$7.75

Solar Powered LED Bicycle Tail Light

This solar powered tail light is a simple and versatile addition to your night riding equipment. The solar cell charges the two AAA batteries during the day giving you enough power to ride for hours at night. The device uses 4 red LEDs that blink in unison creating an easily visible beacon to cars & trucks so you don't become road pizza.

- Weight: 73g (with batteries)
- Dimensions: 64(W) x 65(H)mm

	Cat.	Qty 1+
	ST-3276	$9.95

Waterproof Bicycle LED Indicator Kit

Keep your eyes on the road and turn safely using our bicycle indicator kit. The control unit mounts on to your handlebar and is within easy reach while the indicator mounts on the base of the seat for clearer visibility. Audible beeps confirm your choice of direction; one beep for a right turn and two beeps for a left turn. It even has a hazard light function for road-side emergencies.

- Super Bright
- Left & right indicators
- Audible beeps
- Wireless; easy installation no messy cables
- Handlebar mounts with quick release
- Signal pod requires 3 x AAA batteries
- Waterproof
- Hazard light

Dimensions:

- LED indicator panel (without bracket): approx 160(L) x 24(W) x 64(H) mm
- Indicator buttons (without bracket): approx 57(L) x 21(W) x 44(H)ms

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3227	$29.95	$26.90	$23.70

LED Bike Light Kit

Be sure to be seen on the road! This LED bike torch outputs 190 lumens and has an adjustable focus beam. Mount the torch onto 25 to 31mm handlebars with the adjustable bracket or detached it is a conventional torch. The kit also includes an ultra-bright rear safety light with 3 modes of operation. Designed to clip onto your belt, bicycle saddlebag or back pack.

Specifications	
Output	190 lumens
Burn Time	2.4 hours
Light modes	Focusing beam
Batteries	3 x AAA (not included)
Dimensions	105(L) x 32(Dia.)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
190	ST-3465	$29.95	$26.90	$23.70

Bike Head Torch - 700 Lumens

CREE LED Light

NEW 2013

Providing up to 700 lumens of intense white light, this head torch is the ideal safety addition for any cyclist. Of course not limited to cycling it's excellent for caving, mountain climbing, camping, mining etc. It connects to a Ni-MH battery pack which will provide up to 20 hours of use with the light at 40% brightness. The T6 CREE LED life expectancy is over 100,000 hours and being fully waterproof will outlast the elements. Comes with 2 (small and large) flexible rubber mounts for securely attaching the torch to your bike handlebars. Mains charger included.

- Light modes: High, low, flashing
- Mount to your handlebars easily
- Lumens: 700
- Burn time: 20hrs on low brightness
- Waterproof
- Dimensions: 60(L) x 46(Dia.)mm

RELATED PRODUCT...
See other Head Torches page 253

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
700	ST-3464	$99.00	$88.95	$78.95

WORK LIGHTS

12V Low Cost LED Work Light

NEW 2013

This unit is virtually shatterproof as it uses LED's instead of fragile fluoro tubes. Has 60, yes, 60 superbright LED's housed in a polycarbonate lens, IP65 rated with PVC casing. Comes with a 3m curly cord with a cigarette lighter plug.

- 12VDC
- Strong rear magnet
- Swivel hook
- 450mm Long + Hook

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3264	$29.95	$26.90	$23.70

Rechargeable 51 LED Work Light with 3W Torch

This handy rechargeable work light features 51 high brightness LED's and a 3W high power LED torch which is enough for any sticky situation. Ideal for camping, boating, working on the car or emergencies. Supplied with a magnetic mount and a hanging hook for hands free operation. Mains plug pack and 12V car charger included.

- Charge time: 6-7 hours
- Running time: up to 5 hours
- 3.6V, 2000mAh rechargeable battery
- Dimensions: 460(L) x 60(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3260	$44.95	$40.45	$35.90

4 X 3W High Power 240V Work Light

This IP65 rated shockproof LED work light is housed in a heavy duty rubber design to absorb impact and even abuse from automotive workshops. Featuring four powerful 3W LEDs producing 600 lumens and a swivel hook for hanging that can rotate a full 360 degrees. Suitable for use indoors and outdoors for car repairs or use in garages as a reliable source of light.

- IP65 rated
- 240VAC mains powered included
- Cable length: 5m
- Dimensions: 450(L) x 62(Dia.)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3263	$49.95	$44.90	$39.90

WORK LIGHTS (CONTINUED)

High Brightness Rechargeable Automotive Work Light

A functional work light no motor enthusiast should be without. Affix it to any metallic surface via its magnetic base and back, then adjust the direction of the light using the multi-position stand. Hold it in your hand like a torch to illuminate and inspect, in and around your vehicle. Unfold the two built-in hooks to hang the light off you car bonnet and provide yourself a steady light as you work on your car engine.

- Rechargeable Lithium battery
- Charging time: 4 - 5 hours
- Continuous operation: over 4.5hours after a full charge
- 180 Lumens
- 3 x 1W LEDs & optical lens for better focus
- Multi-postion stand
- Magnetic base and back
- Two hanging hooks
- Dimensions: 280(L) x 62(W) x 44(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3261	$59.95	$53.95	$47.90

240VAC LED Work Lights - IP65

NEW 2013

High brightness, long life LED work lights suitable for illuminating a warehouse, automotive workshop, garden, hallway and entry ways. They feature a high-strength tempered glass cover with a high-pressure die cast aluminium shell. Extremely low wattage keeps running costs down and with an energy efficiency greater than 90% they are also environmentally friendly.

Two models available:

500 LUMEN 10W LED WORK LIGHT IP65

Specifications	
Rating	IP65
Lumens	500
Power consumption	10W
Colour	Cool white
LED Life	Greater than 50,000 hours
Lens angle	120°
LED module dimensions	115(L) x 85(W) x 85(D)mm
Power Input	240VAC
Stand dimensions	350(H) x 210(W) x 210(D)mm

SL-2876

1500 LUMEN 30W LED WORK LIGHT IP65

Specifications	
Rating	IP65
Lumens	1500
Power consumption	30W
Colour	Cool white
LED Life	Greater than 50,000 hours
Lens angle	120°
LED module dimensions	225(L) x 185(W) x 125(D)mm
Power Input	240VAC
Stand dimensions	350(H) x 210(W) x 210(D)mm

SL-2877

Lumens	Watts	Cat.	Qty 1+	Qty 5+	Qty 10+
500	10W	SL-2876	$39.95	$35.90	$31.90
1500	30W	SL-2877	$89.95	$80.95	$71.95

240VAC LED Floodlight - IP65

NEW 2013

High brightness, long life LED flood lights suitable for illuminating a warehouse, automotive workshop, garden, hallway and entry ways. They feature a high-strength tempered glass cover with a high-pressure die cast aluminium shell. Extremely low wattage keeps running costs down and with an energy efficiency greater than 90% they are also environmentally friendly.

- Two models available:

Specifications	SL-2878	SL-2879
Rating	IP65	IP65
Lumens	500	1500
Power consumption	10W	30W
Colour	Cool white	Cool white
LED Life	Greater than 50,000 hours	Greater than 50,000 hours
Lens angle	120°	120°
Power input	240VAC	240VAC
Dimensions	115(L) x 85(W) x 85(D)mm	225(L) x 185(W) x 125(D)mm

Lumens	Watts	Cat.	Qty 1+	Qty 3+	Qty 6+
500	10W	SL-2878	$34.95	$31.45	$27.90
1500	30W	SL-2879	$89.95	$80.95	$71.95

Rechargeable LED Work & Floodlights - IP65

NEW 2013

A range of mobile LED work lights for those who need lots of light without a mains connection. They include rechargeable batteries so you can keep one in the car or caravan to shine a huge amount of light on your engine, or a campsite but can also be mains powered if needed. Toughened glass covers will protect the LED from knocks and shield it from the elements. Supplied with mains charger.

- Burn time: 5 hours
- IP65 rating
- Efficiency: 90%
- Colour: Cool white
- LED Life: Greater than 50,000 hours
- Lens angle: 120°
- Power input: 240VAC (mains charger)

30W 1500 LUMEN RECHARGEABLE WORK LIGHT

Specifications	
Power Consumption	30 Watt
Dimensions	350(L) x 210(W) x 219(D)mm

SL-2886

10W 500 LUMEN RECHARGEABLE FLOOD LIGHT

Specifications	
Power Consumption	10 Watt
Dimensions	115(L) x 85(W) x 85(D)mm

SL-2887

30W 1500 LUMEN RECHARGEABLE FLOOD LIGHT

Specifications	
Power Consumption	10 Watt
Dimensions	225(L) x 185(W) x 125(D)mm

SL-2889

Lumens	Watts	Type	Cat.	Qty 1+	Qty 5+	Qty 10+
1500	30	Work Light	SL-2886	$139.00	$124.95	$110.95
500	10	Flood Light	SL-2887	$69.95	$62.95	$55.95
1500	30	Flood Light	SL-2889	$129.00	$115.95	$102.95

Floodlight Tripod Stand with T-Bar

NEW 2013

Suitable for mounting 2 floodlights for use in a variety of applications. Height is fully adjustable with a range of 825mm (0.8m) to 1631mm (1.6m). Once your floodlights are mooted on the t-bar they can be easily rotated 360°. Aluminium construction shielded with yellow anodised metal cast paint to protect against the elements.

TECH TIP!

Suitable with SL-2878, SL-2879, SL-2887 & SL-2889 Floodlights

Specifications	
Maximum height	1631mm
Minimum height	825mm
T-Bar width	491mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Tripod	SL-2875	$29.95	$26.90	$23.70

27MHz RF Generator

Makers Name: Henry Wyatt
Location: Queensland

Having been bitten by the Amateur Radio bug (a few years ago now), a modern contemporary challenge was irresistible. How to build a source of Radio Frequency Interference (RFI) to the immunity requirements of specific commercial equipment for acceptance testing? The RF source required a minimum of +10dBm (10mW) carrier power, amplitude modulated (AM) to 90%, at 1 kHz sine wave, and switchable to +13dBm (20mW) for threshold testing.

For more details scan the QR code or go to www.jaycar.com.au/makers

Hand Spotlights

LED SPOTLIGHTS

Solar Rechargeable LED Spotlight - 140 Lumens

This super bright 140 lumen solar rechargeable LED spotlight is perfect for your car, boat, workshop, camping or fishing trip. It has a dual position swivel handle for maximum versatility and a high tech solar panel which allows you to charge the battery when not near a 240V mains. Solar cell , car cigarette lighter and mains chargers are all included ensuring you have your spotlight charged at all times and being LED will provide countless of hours of operation without the need for replacement globes.

- Weatherproof
- Detachable weatherproof solar station
- 12V DC car cigarette lighter charger

Specifications	
Light power	140 Lumens
Globe	3 Watt LED
Features	Swivel Handle
Dimensions	175 x 120 x 150mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
140 Lumens	ST-3312	$39.95	$35.90	$31.90

RELATED PRODUCT...

Replacement SLA batteries for spotlight torches available in 6V/12V see page 311

RELATED PRODUCT...

For Hand Torches see page 253 - 255

CREE® LED Rechargeable Spotlight

Super bright LED spotlight with 247 lumen output switchable between half and full power output. AC and 12VDC car charger are both included so it's ideal for boating, camping and other less politically correct outdoor activities. LEDs indicate battery status and it also has an emergency SOS mode as well as a handy flip-up work stand for changing tyres etc. Robust ABS construction.

- CREE® LED
- 247 lumen output
- Colour shaded emergency light
- Work stand
- Battery level indicator
- AC/DC recharge
- Weatherproof
- Multi brightness modes
- Burn time of 8 hours

Specifications	
Light power	247 Lumen
Globe	CREE® LED
Features	Rechargeable
Dimensions	225(L) x 130(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
247 Lumens	ST-3309	$39.95	$35.90	$31.90

Rechargeable CREE® XML Spotlight With Timer

A powerful spotlight that will output up to 550 lumens thanks to the new efficient CREE® XML LED. Features a digital readout that indicates burn time remaining on the torch battery as well as a dual swivel handle. The base includes a multi-position stand so you can base your torch on the ground with the beam pointing at various angles. There is also a 2 x LED map reading light below the main lens for when the full power of the torch isn't required. Cigarette lighter plug car charger included.

- Output: 550 lumens
- Burn time: 4 hours
- Battery type: SLA
- Dimensions: 285(L) x 166(W) x 197(H)mm (folded)

	Cat.	Qty 1+	Qty 5+	Qty 10+
550 Lumens	ST-3314	$69.95	$62.95	$55.95

HALOGEN SPOTLIGHTS

40,000 Candlepower 12V Handheld Spotlight

Simple, lightweight 12V 44W Halogen bulb. Comes with an adjustable handle and a 3m curly cord with cigarette lighter plug. It is water resistant and has an on/off switch.

- Dimensions: 171(H) x 195(L) x 120(W)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3266	$14.95	$13.35	$11.70

5,000,000 Candlepower Rechargeable Spotlight with Swivel Handle

This powerful and compact hand-held spotlight provides 20 minutes continuous operation. It has an integrated multi-position rubber grip for a more comfortable grip and also has a dual LED complementary light. Comes with mains power adaptor and cigarette lighter charger.

- Swivel Handle & stand with hanging hole
- Bumper guard ring
- High polished reflector
- 6 volt H3 55W Halogen bulb

Specifications	
Light power	5,000,000 Candlepower
Globe	6V H3 55W Halogen
Features	Swivel handle
Dimensions	260(L) x 175(W) x 180(H)mm

	Candlepower	Watts	Cat.	Qty 1+	Qty 5+	Qty 10+
Torch	5,000,000	55	ST-3303	$24.95	$22.35	$19.70
			Cat.	Qty 1+	Qty 10+	Qty 25+
Replacement Globe			SL-3221	$5.95	$5.25	$4.75

HID SPOTLIGHT

High Intensity Discharge (HID) Spotlight - 35W

Price Breakthrough! At last, a powerful HID hand-held spotlight for under $100!* This full-feature unit includes inbuilt rechargeable SLA battery, 240V AND 12V charger and swing away stand.
It also includes a dual-led map light

- 35W HID bulb
- 30 million candlepower
- Amazing beam distance
- Reflector dia. massive 135mm
- Dimensions: 280(L) x 190(D) x 140(W)mm (less reflector)

* In Australia

	Cat.	Qty 1+	Qty 5+	Qty 10+
35W HID	ST-3379	$69.00	$61.95	$54.95
Spare Battery	ST-3397	$24.95	$22.35	$19.70

HID Spot/Search Light with Remote Controlled Pan/Tilt

At the touch of a button pan and tilt a powerful beam of light where you need it, without reaching/stepping outside your vehicle. Plugged into your cigarette lighter socket, it's capable of producing 4500 Lumens of white light reaching over 1000m, making it ideal for use in search and rescue missions, hunting or general spot lighting. You don't have to be stationary to use the light, the base features a magnetic rubber vacuum pad which ensures strong grip mounted on the roof of your car, 4WD, truck or boat. The remote will even allow you to operate the light up to 150m away; handy for searching on foot, tracking game or doing work around the campsite.

- Wireless remote control (150m range)
- On/off 360˚ pan & 120˚ tilt range
- Ferrite magnetic + rubber vacuum pad

Specifications	
Power	HID-Xenon 35W/55W
Voltage	12V/24VDC
Colour temperature	6000K
Life	3000 - 5000 hours
Light output	4500 lumens @ 55W
Long distance	1000m+
Dimensions	270(H) x 200(L) x 180(W)mm

	Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
	4500	ST-3377	$169.00	$151.95	$134.95

12VDC LIGHTING

Mini LED Light

Pre wired in a sleek and compact design, this is a perfect mini LED light for illuminating harsh areas. Using new advanced lens technology the LEDs increase light output for optimal lighting with minimal power. The 12 volt light draws 10% of the power of conventional lights. Sealed stainless steel construction allow for placement in tight spaces and harsh environments. Horizontal and vertical mounts provide a variety of mounting options. Can be used in step, board, accent lighting as well as marine applications!

- White powdercoated finish
- 12VDC
- Dimensions: 39(W) x 12.7(H) x 12.7(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3193	$12.95	$11.35	$10.35

Ceiling Mount LED Light

NEW 2013

Improve the illumination in your caravan, car, truck or boat with this ceiling mount LED light. Waterproof and easy to install, the 42 high brightness LED's add more than light for your interior.

Specifications	
LED	42
Output	4.2W
IP rating	IP66
Power	12-24VDC
Dimensions	145(Dia.) x 28(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
200	SL-3448	$34.95	$31.45	$27.90

Circular 36 LED - 190 Lumen Cabinet Light - Touch Switch

A stylish and compact LED Cabinet Light suitable for caravan, marine, 4WD, auto and domestic applications. Touch the aluminium casing to turn the light on and off. Screw mounting holes in base hidden behind removable aluminium trim for neat and easy installation.

Specifications	
Input voltage	9 - 30VDC (works on 12V and 24V systems)
Uses	36pcs of 3528 SMD LEDs
Lumens	190
light Output	90º
Power Consumption	3W
Colour Temperature	Cool white 5500K
Dimensions	70(Dia) x 9(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
190	ST-3915	$29.95	$26.90	$23.70

Ultra-slim 42 LED Caravan Roof Light with Touch Switch

NEW 2013

Mount to the roof of a caravan, RV or boat to produce bright white light from its 42 cool white LEDs. It is only 11mm thick, features a touch switch for lighting control and is easy to install.

- Colour temperature: 5000 - 6300K (Cool White)

Specifications	
LED	42
Output	3W
Lumens	107
IP rating	IP66
Power	12-24VDC
Beam Pattern	120°
Dimensions	130(Dia.) x 11(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
107	SL-3449	$39.95	$35.90	$31.90

24 LED Caravan Roof Light

Replace your unreliable caravan or mobile home incandescent globes with this low power 24 LED roof light. It can be easily mounted to a roof with 4 screws (not supplied) to provide your interior with all the light it needs. The unit has a rear metal housing with detachable front cover.

Specifications	
Voltage	12VDC
Power	9W
Colour Temperature	4500K
Dimensions	213(L) x 66(W) x 41.5(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
400	SL-3447	$34.95	$31.45	$27.90

Linkable Aluminium LED Strip Lighting

NEW 2013

A stylish aluminium LED strip light. Suitable for caravan, marine, 4WD, auto and domestic applications. Connect multiple lights together with the include connector to match your desired length. Screw mounting holes provided on the ends for easy installation.

- Works on 12V and 24V systems
- 3528 SMD LEDs (42 pieces)

Specifications	
Input voltage	9 - 30VDC
Lumens	280
Light Output	90º
Power Consumption	3W
Colour Temperature	Cool white 5500K
Dimensions	300(L) x 20(W) x 9(H)mm

1 YEAR WARRANTY

	Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	280	ST-3918	$29.95	$26.90	$23.70

Solar Outdoor Wall Lamp With Sound Sensor

The perfect alternative to outdoor electrical lighting and ideal for illuminating your outdoor paths, walkways or as a spotlight above a garage door. It is weatherproof, heatproof and durable with over 12 hours run time in one day charge. The unit has a light and sound sensor and automatically turns on at low light levels and by sound. Easy to use and install with mounting bracket and screws included.

- Integrated design
- Solar panel 0.55W
- Li-ion battery 3.7V 800mAh
- 0.8W LED light
- Sound sensor
- Auto delay
- Expansion pillar hinge included
- Dimensions: 35(H)mm x 124(L)mm x 91(W)mm

1 YEAR WARRANTY

NEW LOWER PRICE

	Cat.	Qty 1+
	SL-2767	$24.95

CARAVAN LIGHTING

6 x White LED Corner Strip Lamp

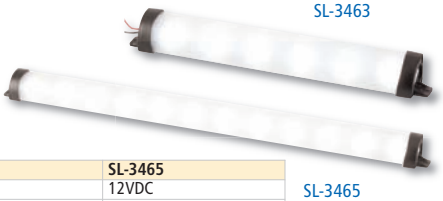
NEW 2013

Corner strip lamps for a caravan or boat. The high brightness LEDs are encased in an opaque diffusing channel and include mounting holes on either end. Wire it up to a switch and away you go. We have 6 x LED and 12 x LED models available.

6 X WHITE LED CORNER STRIP LAMP
SL-3463

12 X WHITE LED CORNER STRIP LAMP
SL-3465

SL-3463



SL-3465

Specifications	SL-3463	SL-3465
Power	12VDC	12VDC
Colour	Cool white	Cool white
LEDs	6 x LEDs	12 x LEDs
Light output	65 Lumens	140 Lumens
Dimensions	210(L) x 25(W) x 25(D)mm	410(L) x 25(H) x 25(D)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
65	SL-3463	$14.95	$13.35	$11.70
140	SL-3465	$24.95	$22.35	$19.70

"Hockey Puck" Style Downlight

NEW 2013

This unit features 4 super-bright cool white LED's in a diffuser fitting. The diffuser also acts as a push-on-push-off switch. The lamp can be a surface mount (hockey puck style) or flush mount style - by creating a 55mm ceiling hole. Either way 3 x stainless steel screws are provided.

- Draws a miniscule current
- Modern, classic design
- 12VDC powered
- Dimensions: 75mm (Dia.) x 25(D)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
45	SL-3458	$17.95	$15.95	$14.35

LED Cabin Lighting & Ventilation

CARAVAN LIGHTING (CONTINUED)

12 White LED Roof Mount Interior Lamp

NEW 2013

Simple to install and use LED roof lamp for your motorhome, truck, or boat. 12 high brightness cool white LEDs and a on/off switch. Wire it up and away you go.

Specifications	
Power	12V
Colour	Cool White
LED	12 x LED
Light Output	140 Lumens
Dimensions	185(L) x 126(W) x 25(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
140	SL-3452	$24.95	$22.35	$19.70

12 LED Roof Lamp with Switch

NEW 2013

A fixed installation roof lamp suitable for a caravan, boat, truck, or even a car. The LEDs sit behind a diffuser to help spread the light evenly. Mounting holes on the backing will allow attachment to the roof.

12 LED ROOF LAMP WITH SWITCH
SL-3460

30 LED ROOF LAMP WITH SWITCH
Dual light intensity feature.
SL-3461

SL-3460

SL-3461

Specifications	SL-3460	SL-3461
Power	12/24VDC	12/24VDC
Colour	Cool white	Cool white
LED	12 x LEDs	30 x LEDs
Light output	280 Lumens	320 Lumens
Dimensions	404(L) x 88(W) x 28(H)mm	398(L) x 108(W) x 31(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
280	SL-3460	$44.95	$40.45	$35.90
320	SL-3461	$69.95	$62.95	$55.95

6 x White LED Awning Light

NEW 2013

A simple to install light to provide illumination under a caravan or boat awning. Features two mounting holes on either edge and should be wired up to an on/off switch.

Specifications	
Input voltage	12 - 24VDC
LED	6 x Cool white LED
Light output	140 Lumens
Dimensions	250(L) x 85(W) x 35(H)mm

1 YEAR WARRANTY

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
140	SL-3459	$19.95	$17.70	$15.70

3W Gymbal LED Spotlight Flush Mount

NEW 2013

A flush mount LED spotlight suitable for caravans and boats. It produces a bright cool-white light in a gymbal mount/bracket for optimum directivity. An on/off rocker switch fitted. Negligible current draw.

- 12V or 24VDC
- Colour: Cool White
- LED: 1 x 3W LED
- Light Output: 165 Lumens
- Requires 52 Dia. Cut-out (+ small hole for switch)

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
165	SL-3472	$34.95	$31.45	$27.90

Wall/Desk Mount LED Gooseneck Lamp

NEW 2013

This lamp fitting will be at home in a boat, caravan or the bedroom at home. It features a sturdy 30cm gooseneck with screw-down base at one end and 9-LED luminaire at the other. The LED's are cool white. Once the base is fixed the gooseneck can be swivelled at almost any angle (greater than counterpoise lamps) for comfortable reading or, say, highlighting a painting etc.

- 12V Powered
- LED: 9 x Cool White
- Light Output: 75 Lumens
- Dimensions: 400(L) x 50(W) x 35(H)mm

Lumens	Cat.	Qty 1+	Qty 5+	Qty 10+
75	SL-3473	$19.95	$17.70	$15.70

LIGHTING SWITCHES

12VDC Touch Switch Controller With 3 x Touch Switches

NEW 2013

Add three sleek and unobtrusive touch switches to control 12VDC LED lighting in your caravan, car, or boat. Just connect a 12VDC power supply or wire in power yourself. Each switch will control the same device so you can install the switches in convenient locations.

Specifications	
Rated Current	3A
Standby Power	6W
Rated Power	550W
Dimensions	59(L) x 39(W) x 13(H)mm
Touch switch wire length	150(L)mm

Cat.	Qty 1+	Qty 10+	Qty 25+
ST-3942	$29.95	$26.90	$23.70

12VDC Switch Controller with PIR Sensor

NEW 2013

Add some power automation to your caravan or boat. This simple device to switch on lights or other 12VDC powered devices when movement is detected. Able to be connected to a 12VDC power supply or you can wire in power yourself if you need a more customised install.

Specifications	
Max switching load	12VDC 3A
Detection Range	1-3m
PIR Wire Length	150(L)mm
Dimensions	59(L) x 39(W) x 18(H)mm

Cat.	Qty 1+	Qty 10+	Qty 25+
ST-3940	$19.95	$17.70	$15.70

VENTILATORS

Solar Powered Ventilator

Completely solar powered to reduce mould, mildew, moisture and excess heat build-up in boats, caravans and RVs, or anywhere else you need air extraction. Air is drawn from inside and expelled through the vent.

- Cutout size: 150mm.
- Wall or roof mounting
- Stainless shroud
- Gasket included
- Dimensions: 215(Dia) x 30(H)mm

Cat.	Qty 1+	Qty 2+	Qty 4+
MP-4559	$79.95	$71.95	$63.95

Solar Powered Ventilator

Rooms prone to odious smells, noxious gasses, high build up of mould etc should always be fitted with some kind of vent extraction to expel the unwanted air. This solar powered vent extractor will do it all without an ongoing operating cost. It is a completely self contained unit capable of operating for up to 24 hours on a fully charged battery. The solar panel sits adjacent to the extraction vent grille to prevent fouling of the solar cells. Perfect for a variety of applications such as bathrooms or kitchens.

- Good for roof or wall mounting
- 60 cubic metres per hour fan capacity
- 3.5V Solar panel, rated at 400mA max
- Includes spare blade
- 6.0VDC 1300RPM - requiring at least 170mA
- Built-in Rechargeable 1.2V 3000mAh Ni-MH battery
- Operates without wires and any running costs
- For use in homes, kitchens, bathrooms, offices, temporary sites and accommodations, etc
- Fully charged will operate for approx 24 hours
- Dimensions: 210 x 240mm

Cat.	Qty 1+	Qty 2+	Qty 4+
MP-4558	$99.95	$89.95	$79.95

FANS

12-24VDC Oscillating Fans

NEW 2013

Keep cool in the stifling heat. If you need some extra air circulation in your car or truck grab one of these fans, mount it, and away you go. The models are whisper quiet just connect to your cigarette lighter socket for power. The on/off switchbox includes screw mounting holes to give your installation a more permanent look.

Clamp and suction mount bracket versions available.

GH-1398

1 YEAR WARRANTY

Specifications	
Power	12-24VDC
Dimensions	180(Dia.) x 145(D)mm
Switch	On/off oscillating switch
Cable length	2m

	Cat.	Qty 1+	Qty 3+	Qty 6+
Fan with Clamp	GH-1398	$19.95	$17.70	$15.70
Fan with Suction Mount Bracket	GH-1399	$22.95	$20.35	$18.35

Portable Ceiling Fan and Light

Designed for use while camping, this battery powered ceiling fan is also great for use around the home or workshop. With a carabineer for easy setup you simply hang it anywhere you require some airflow and turn it on. The fan has soft foam blades for safety and two speed settings to match your cooling requirements. The bright white LEDs allow you to illuminate your tent or work area, while a softer yellow LED mode allows it to be used as a night light.

- Maximum Run Time: 48 hours
- Requires 4 x D batteries (not included)
- Dimensions: 220(Dia) x 145(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-2804	$34.95	$31.45	$27.90

Rechargeable Battery Operated Fan

NEW 2013

Beat any heat wave with this portable battery operated fan! Lightweight and powerful, it can be brought along to any BBQ, picnic and camping adventure. It's water resistance also makes it perfect for work sheds and near the pool. With its patented fan blade design and long running life, it really is the ultimate summer companion. Supplied with a power supply to charge the internal rechargeable batteries that can run for 6 hours when fully charged. It can also be powered by 8 x D cell Alkaline batteries (Available separately).

1 YEAR WARRANTY

Specifications	
2-speed control	High & Low
Weight	1.8kg
Dimensions	300(L) x 90(W) x 330(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1062	$69.95	$62.95	$55.95

FOOD & BEVERAGE ACCESSORIES

Tea or Coffee Brewing Basket

NEW 2013

Brewing basket with stainless-steel mesh and heat-tolerant plastic frame. Ample room for the tea leaves to expand. Permanent filter for brewing either tea, herbal tea, fruit infusions or coffee. Aroma unaffected! Taste unaffected! Long-lasting! The lid doubles as a handy drip-off tray for the basket.

- Dishwasher safe
- Colour: Black
- Suits mugs & tea pots with diameters 65 to 95mm
- Suitable for pots with diameters from 70 to 100 mm
- Basket dimensions: 75H x 70(Dia.)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1385	$7.95	$6.95	$6.25

TECH TIP!

IN-CAR 12V PRODUCTS

See page 241 for our new range of In-car 12V cigarette lighter splitters and adaptors.

12V Car Kettle

Now you can stop, revive, survive anywhere. This kettle makes the ideal travelling companion for those who spend a lot of their time on the road. Simply plug into your car's cigarette lighter socket, mount to your car's interior and boil away. Holds up to 550ml and makes up to 4 cups of tea, coffee, soup or any other hot beverage. Note that this device is not the same as your domestic kettle which consumes much more power so boiling times will be longer.

- 2 cups, strainer and mounting bracket included
- Approx boiling times
  300ml - 15min
  500ml - 28min
- Dimensions: 235(H) x 95(dia)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1380	$17.95	$15.95	$14.35

Stainless Steel Travel Mug with Built-in Heater

Keeps your coffee, tea, or other beverages hot while driving. This handy travel mug has a built-in, thermostatically controlled heater and will maintain one of four selectable preset temperatures (Room temp, Luke warm, Hot and Very Hot). The mug shows the actual temperature on an LCD and indicates the heating progress via the control panel display. The mug holds up to 500ml and has a anti-spill lid with retractable drinking spout.

- Stainless Steel construction with ergonomic handle
- Fits in a cup holder
- Heats from 10° to 70°C
- Celsius and Fahrenheit selectable
- Includes 1.5m detachable 12V lead with cigarette lighter plug

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1301	$29.95	$26.90	$23.70

12V Portable Stove

Ideal for cooking and/or keeping food hot on those long trips. It gets up to 140°C and its insulated design keeps food hot, while the outside stays cool. It plugs into the cigarette lighter socket in the car.

- Outside dimensions is 260(L) x 180(W) x 190(H)mm
- Inside dimensions is approximately 225(L) x 120(W) x 90(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-2808	$49.95	$44.90	$39.90

Electronic LPG Gas Level Monitor

NEW 2013

The clever unit attaches to your steel LPG bottle. It detects the gas in your bottle, (typically 9kg) and gives a musical alarm when the gas in your bottle is low. Don't run out of gas halfway thru a barbie ever again!

- Works on any steel LPG cylinder
- Uses 2 x AA batteries (supplied)
- Virtually no installation
- Magnetically attaches to cylinder

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1662	$9.95	$8.75	$7.75

Gas Leakage Detector

Gas leaks can be incredibly dangerous, even small ones. Run a quick check over your house or gas powered devices to make sure all outlets are safely sealed. Hold the power button for a few seconds and then place the detector near the suspected leak and visual/audible warnings will sound if the leak is bad, moderate or safe. Red (Hi), orange (Lo), and green (safe) LEDs denote the severity of the leak.

NEW 2013

Specifications	
Requires	2 x AAA batteries (not included)
Sensor detects	butane, propane, acetylene, and methane (natural gas)
Dimensions	165(L) x 27(W) x 21(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2299	$39.95	$35.90	$31.90

12V Coolers & 12/24V Portable Refrigeration

12VDC THERMOELECTRIC PORTABLE COOLER & WARMER

11 Litre Version

The 11L capacity allows storage of up to 16 standard size cans or a sizeable mixture of drinks and food. The 12VDC cigarette lighter plug cord sits behind a panel at the front of the unit for connecting to your vehicle, and the mode (cool or warm) is indicated with an LED.

Just connect to the car's 12VDC power socket and away you go.

- 2 beverage holders to accommodate different-sized containers

Specifications	
Voltage	12VDC
Min Temperature	Approx 2° Celsius
Max Temperature	Approx 75° Celsius
Capacity	11 litres
Dimensions	450(H) x 345(W) x 265(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
11 Litre	GH-1371	$89.95	$80.95	$71.95

PORTABLE FRIDGE / FREEZERS

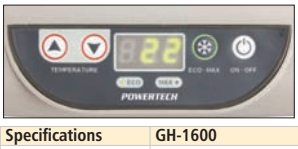
12VDC/240VAC Powertech Portable Fridge/Freezers

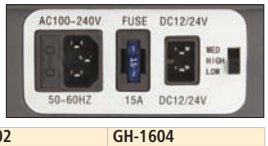
Utilising the renowned German Danfoss® BD-35F DC compressor and electronic control module, these Powertech portable fridge/freezers keep your food and drinks fresh and cold with superb energy efficiency and reliability. Each model features a digital display control panel to set the fridge temperature from -18° to 10°C, an internal LED light to help illuminate the fridge with minimal power draw, 3-stage low-voltage battery protection, an internal food basket with removable divider and a separate dairy section. The whole body is completely insulated with PU foam to ensure the inside remains nice and cold with minimal compressor run-time, and tough external carry handles double as tie down points. Capable of being powered by either 12-24VDC or 240VAC, they are a fantastic solution for 4WD, camping, caravanning or any other outdoor adventure. We are so confident in these Powertech portable fridge/freezers, we back them with a 5 year compressor warranty, and a 3 year components warranty!

- Digital temperature display with adjustable control
- AC or DC power connections
- 3-stage low voltage battery protection
- German Danfoss® BD-35F compressor and electronic control module
- Internal LED light
- Internal basket with removable divider
- Separate dairy section
- Strong carry handles/tie-down points
- Polypropylene construction with PU foam insulation
- Dual mode operation (max & economy)
- High impact Case

GH-1604

GH-1600





Specifications	GH-1600	GH-1602	GH-1604
Internal capacity:	30L	40L	50L
Input voltage:	12/24VDC, 240VAC	12/24VDC, 240VAC	12/24VDC, 240VAC
Temperature range:	-18°C - +10°C	-18°C - +10°C	-18°C - +10°C
Refrigerant:	R134a	R134a	R134a
Insulation:	PU foam	PU foam	PU foam
Avg. current draw:	17Ah/day	17Ah/day	17Ah/day
Weight:	16kg	17kg	18.5kg
Dimensions (LxWxH):	585 x 350 x 380mm	585 x 350 x 490mm	585 x 350 x 530mm

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+
30 Litre	GH-1600	$695.00	$659.00
40 Litre	GH-1602	$749.00	$709.00
50 Litre	GH-1604	$825.00	$785.00

Note: Not available at all stores but can be ordered. Phone ahead.

POWERTECH

REPLACEMENT FRIDGE LEADS

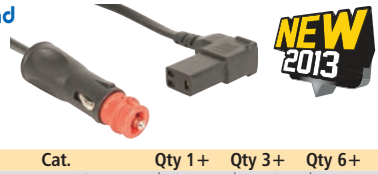
Replacement Lead to suit Waeco Fridges

Replacement Lead to suit Waeco Fridges. Suits cigarette and merit sockets.

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.8m	PP-1982	$19.95	$17.70	$15.70

Replacement Power Lead to suit Engel Fridges

Replacement Power Lead to suit Engel Fridges. Suits cigarette and merit sockets.



Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.8m	PP-1984	$19.95	$17.70	$15.70

ROADSIDE ASSIST

Roadside Auto Emergency Kit

NEW 2013

A must have for every car, caravan, or boat for that extra travel security if you break-down or become stranded. The 10-piece kit includes some first aid items to patch up a bleeding hand, leads to jump start a car with a flat battery, LED head torch to help see around an engine bay at night, and rubber grip gloves to grab items without slipping.

- Custom storage case contents:
- 4 LED Head Torch
- Light Duty Jumper Cable Set
- Rubber Grip Globes
- Tyre Pressure Gauge
- First Aid bandages and disinfectant pads
- Multipurpose tweezers
- Emergency rain poncho
- Requires 3 x AAA batteries for the head torch
- Case dimensions: 265(L) x 157(W) x 75(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3267	$19.95	$17.70	$15.70

12V CAR & CAMPING ACCESSORIES

12V Camping Shower

All you need is a bucket of warm water and your vehicle's 12V battery and you can wash away the cares of the day. The 4.8 metre power cable plugs into your vehicle's cigarette lighter socket and a waterproof switch controls power to the pump. The shower comes with 2.1 metres of plastic tubing, pump, showerhead, hanging hook and a nifty carry bag to store it in. This self-contained little beauty even has a water flow control valve built into the showerhead and will become an indispensable part of your travelling kit.

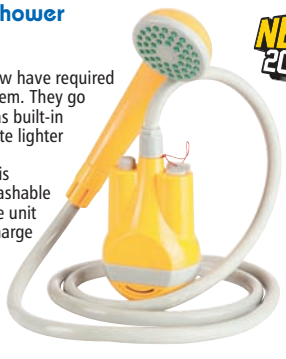
	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-2800	$24.95	$22.35	$19.70

Rechargeable Camping Shower

NEW 2013

No more flat batteries!

Camping shower pumps up until now have required standard alkaline batteries to run them. They go flat - no shower! This new model has built-in rechargeable batteries and a cigarette lighter plug charger or USB charger. The pump/control/battery compartment is completely waterproof and has a washable filter which rarely needs a clean. The unit will work for 40 mintues on a full charge and comes with mounting/hanging accessories.



- In-car and USB charger supplied.
- 3.4 litre per min flow
- Hose length: 1.8m

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-2803	$49.95	$44.90	$39.90

Portable Camping Shower - Battery Operated

NEW 2013

This high quality portable shower is battery powered so you can use it almost anywhere. Simply drop the submersible pump into a clean water supply or attach it to a compatible water barrel, hang the shower head in a convenient location, and activate the pump with the push button switch. It can also be used as a direct water pump by detaching the shower head. Made from impact resistant ABS plastic with rubber seals all components are weather resistant.

- Hose Length: 2.5m
- Power Cable Length: 1.8m
- Requires 4 x D batteries (not included)
- Battery Pack Dimensions: 100(Dia) x 95(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-2802	$39.95	$35.90	$31.90

11L Folding Bucket

NEW 2013

Storage will never be a problem again with this handy 11 litre collapsible bucket. When folded, it is only 35mm in height and 270mm in height when opened. The bucket is made from durable materials and the interior is waterproofed. Easy to clean. Ideal for camping, fishing, boating, gardening, car washing etc.

- Dimensions: 246(Dia.) x 35 - 270mm high

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1264	$9.95	$8.75	$7.75

METAL DETECTORS

Portable Metal Detector

NEW 2013

Ideal for both beach combing and prospecting this compact metal detector has an adjustable length boom and a waterproof search coil making it suitable for use in a variety of landscapes. Capable of detecting a 10 cent coin at up to 120mm depth it will detect a variety of metals with ease including iron, nickel, gold, brass, zinc, copper, silver, and aluminium. With knobs to control sensitivity and metal type you can calibrate the unit to match what you are trying to locate and avoid the bottle caps at the beach. Features a moving needle display to indicate when an object is found together with an inbuilt speaker & 3.5mm headphone socket for audible notification.

- Controller Dimensions: 230(L) x 120(H) x 100(W)mm
- Overall Length: 600 to 880mm
- Search Coil Dimensions: 165(Dia) x 17(H)mm
- Requires 6 x AA Batteries (not included)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2301	$59.95	$53.95	$47.90

STOP PRESS! A gold nugget weighing a massive 5.5kg was discovered recently under the ground near Ballarat in Victoria. The gold in the nugget was worth $282,000 but the rare nugget was worth even more because of its size.
It was found with a portable metal detector. It may have remained undiscovered if not for metal detector technology.

Portable Metal Detector with LCD Display

NEW 2013

Ideal for beach combing and prospecting as well as finding objects in obscured locations such as long grass, this high grade portable metal detector is suitable for many applications. Capable of detecting a 10 cent coin at up to 150mm depth it will detect a variety of metals including iron, nickel, gold, brass, zinc, copper, silver, and aluminium. With an adjustable length boom, forearm brace, and padded handle, the comfort and balance is excellent resulting in minimal effort during use. Metal detection is indicated on the LCD screen which shows both the type of metal and depth of reading. An audio tone is also activated on the built-in speaker with varying pitch to indicate the type of metal. A 3.5mm headphone socket is also available for headphone use.

- Controller Dimensions: 145(W) x 125(L) x 86(H)mm
- Overall Length: 1080 to 1300mm
- Search Coil Dimensions: 205(Dia) x 20(H)mm
- Requires 6 x AA Batteries (not included)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QP-2303	$149.00	$133.95	$118.95

Products for the Outdoors

PEST CONTROL

The Amazing Flygun

The Amazing Flygun is a spring powered gun that kills flies, mosquitos and cockroaches! It is fun, safe and easy to use. The swatter is simply pushed onto the gun and it is ready to use. A long string is also attached so the swatter won't get lost. It is then ready to be reloaded and fired again. It is fun, effective and really does work! It has proven extremely popular, with thousands being sold every month!

TECH TIP!
Safe for Kids 8 years +

TRUST US! THIS THING REALLY WORKS!

	Cat.	Qty 1+	Qty 3+	Qty 6+
Flygun	YS-5545	$7.95	$6.95	$6.25

Personal Sonic Insect Repeller

Keep the mozzies away! With a range of 6 metres, it's perfect for camping, picnics fishing etc. It also has a pocket or belt clip to keep it handy.

- Requires AA battery: SB-2424.
- Dimensions: 75(L) x 25(dia)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-5534	$9.95	$8.75	$7.75

High Power 'Frequency Shifting' Ultrasonic Pest Repeller - 140dB

This ultrasonic pest repeller uses frequency shifting techniques which may prevent pests from developing an immunity. The device has an output of 140dB that can protect up to 280 square metres. The repeller may be effective against mice, rats, roaches, fleas, flies, crickets, silverfish, waterbugs, moths, ants, spiders and most other common pests. The ultrasonic frequencies used are out of the hearing range of humans and most household pets such as cats, dogs, fish & birds etc. A test feature down shifts the frequency output to an audible range. We make no guarantees that this device will solve your particular problem, but there are thousands of people who swear by them.

- Supplied with mains plugpack and installation guide.
- Dimensions: 120(Dia.) x 75(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-5520	$34.95	$31.45	$27.90

Dual Speaker Pest Repeller - 160dB

This pest repeller may be effective in controlling mice, rats, roaches, fleas, flies, crickets, silverfish, moths, ants and most other common pests. It uses ultrasonic sound waves to repel insects and rodents by attacking their auditory and nervous systems, causing them to relocate elsewhere. It will not affect humans and pets or interfere with televisions, radios, alarms or other electronic equipment. A small red LED indicates the unit is operating properly as it effectively protects an area up to around 300 square metres. No more dangerous chemicals to buy, no more messy traps to clean and set, this is the year round protection your premises needs to keep those nasties away. Plug pack included.

Specifications	
Power Consumption	2W
Frequency range	24 - 50kHz
Output sound pressure	160dB

	Cat.	Qty 1+	Qty 3+	Qty 6+
	YS-5522	$59.95	$53.95	$47.90

TRAVEL ACCESSORIES

Digital Map Measure with LED Light

Working out the distance between two points on a map or chart is easy with this navigation tool. The scale can be adjusted for any map. The LCD screen has a backlight for night use and an LED flash light. A must have gadget when out on the road, water, or in the bush.

- 10m measuring range
- Minimal distance on display: 1mm
- Backlight LCD
- LED Flashlight
- ON/OFF, light, unit, scale and trace buttons
- 1 x CR2032 3V battery Included
- Dimensions: 96(L) x 50(H) x 13(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0374	$9.95	$8.75	$7.75

Photocatalyst Mosquito Traps

NEW 2013

Mosquitoes are attracted to the carbon dioxide humans emit and they are also highly sensitive to ultraviolet light. When the ultraviolet light in these units shines onto the titanium dioxide, it will emit carbon dioxide through a photocatalytic reaction. These two major elements will attract mosquitoes. When the mosquito gets too close to the unit, the fan will suck them into the capture compartment, once inside they can't escape and their exoskeletons will dry out eventually killing them. Far cleaner than using noxious mosquito coils, spray on repellent, etc. Mains power supplies included.

INDOOR PHOTOCATALYST MOSQUITO TRAP
- Power: 12VDC 500mA
- Consumption: 4W
- Dimensions: 170(L) x 115(Dia)mm

YS-5514

INDOOR/OUTDOOR PHOTOCATALYST MOSQUITO TRAP
- Power: 12VDC 1000mA
- Consumption: 11W
- Detachable base for easy cleaning
- 11W Fluoro Globe
- Dimensions: 248(H) x 245(Dia)mm

YS-5516

	Cat.	Qty 1+	Qty 3+	Qty 6+
Indoor	YS-5514	$29.95	$26.90	$23.70
Indoor/Outdoor	YS-5516	$49.95	$44.90	$39.90

MULTITOOLS

7 in 1 Multi-Function Pocket Tool

NEW 2013

Tackle any obstacle and task with this 7 in 1 Multi-Function Pocket Tool, the perfect addition to any camping trip or climbing expedition. With 2 knives, 2 can/bottle openers, spring-loaded scissors, a standard screwdriver and a trusty corkscrew, this great tool is the answer to all your outdoor needs. The tool locking mechanism guarantees great results and its lightweight aluminium frame makes it both sleek and strong.

- Dimensions: 99(L) x 23(W) x 19(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1924	$9.95	$8.75	$7.75

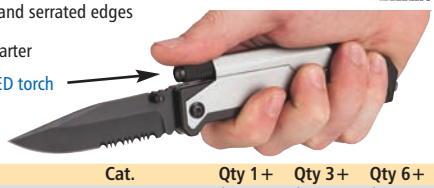
Survival Knife with LED Torch/Fire Starter/ Belt Cutter/Window Breaker

NEW 2013

Built for extreme adventures, the knife is crafted using Grade 420 stainless steel for maximum durability. A liner lock system allows you to effortlessly extract the blade with one hand, leaving the other one free. Use the serrated edge to cut with speed or the straight edge to cut with precision. The built-in LED light lets you see in the dark while the magnesium alloy fire starter lets you start your own campfire. If you find yourself trapped inside your own vehicle, use the belt cutter and window breaker for a quick escape.

- Grade 420 stainless steel construction with anodised aluminium handles
- Liner lock system
- Blade features straight and serrated edges
- Built-in LED lighter
- Magnesium alloy fire starter
- Belt cutter
- Window breaker
- Dimensions:
  Open: 208(L)mm
  Closed: 126(L)mm

LED torch



	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1925	$14.95	$13.35	$11.70

12 in 1 Multi-Function Tool with Carry Pouch

NEW 2013

Versatile and incredibly strong. Features an all aluminium frame and a locking mechanism that ensures the tool stays open until the job is completed. Its sleek and lightweight design enables you to take it anywhere, and it is a great alternative to carrying additional full-sized tools. Includes a file, bottle/can opener, saw, scissors, small and large knife, 3 sized standard screwdrivers, a Phillips head screwdriver, long nose pliers and an LED torch. Complete with a nylon pouch and a snap button loop for easy attachment to additional gear, the 12 in 1 Multi-Function Tool is a must have for any explorer.

- Dimensions: 99(L) x 43(W) x 18(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1926	$24.95	$22.35	$19.70

ELECTRIC FENCE

Electric Fence Energiser - 10km

NEW 2013

Capable of electrifying up to 10km of fencing for enclosing livestock such as horses, chickens, cattle, sheep, etc. Installation is simple, connect up to a 12VDC lead acid battery via the alligator clips, and then using the binding posts, wire up to a suitably fitted electric fence wire and ground stake. You will need to ensure that you have the correct electric fence isolators, joiners wire and tape fitted to your fence to ensure it works properly - full instructions are included with the unit and available on our website. The required fencing components are available from most agricultural supply stores.

- 10km range
- 0.6 Joules
- Average power consumption: 10mA
- Max power: 12VDC 85mA
- 12VDC battery operated (recommended 4Ah or larger SLA)
- Minimum 3W solar panel recommended
- Dimensions: 171(H) x 95(W) x 45(D)mm

1 YEAR WARRANTY

Note: DO NOT CONNECT TO MAINS ELECTRICITY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ME-6800	$79.95	$71.95	$63.95

SECURITY

Door Alarm with Entry Chime

NEW 2013

Sounds a loud 120dB siren when an intruder opens the door, or a pleasant entry chime when set to door entry mode. Features entry delay, exit delay and a 4-digit keypad to activate or disarm the alarm. Supplied with versatile mounting plate, which can be mounted using the included double-sided tape or mounting screws.

- Home or Away mode for instant or delayed activation
- Loud 120dB siren
- Low battery indicator
- 3 x AAA batteries required

Specifications	
Exit Delay	45 seconds
Entry Delay	30 seconds
Dimensions	85(H) x 65(W) x 25(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5165	$14.95	$13.35	$11.70

Keypad Shed Alarm

Simple and effective garage or shed alarm. Consisting of a keypad and single reed switch for a door or window and 5m of cable for easy DIY installation. It can be used as an instant alarm, with an entry delay or as a door chime to announce entry. Powered by a single 9V battery (Not Included).

- Dimensions: 162(H) x 85(W) x 32(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5214	$19.95	$17.70	$15.70

TV ON THE MOVE

12V Masthead Amplifier Power Injector

NEW 2013

An easy solution to powering a masthead amp on a caravan, RV, camper trailer etc. It plugs into a cigarette lighter/12V power socket and feeds power for a masthead amplifier. Simply connect between the antenna down lead and your set top box. F-type connections fitted.

- Suitable with LT-3251 VHF/UHF masthead amplifier

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3259	$34.95	$31.45	$27.90

TV ON THE MOVE

Outdoor UHF/VHF/Marine TV Antenna

Digital ready. It rotates. Ideal for "grey nomads". This unit is ideal for the traveller. Because you could be in any part of Aust/NZ this antenna works on all frequencies. (Some better than others, we admit). It covers VHF low, down to 45MHz (channel 2) to 860MHz (channel 69).

It includes a signal amplifier (12VDC powered, adaptor supplied) AND a rotator motor built into the antenna housing AND a remote control for that. It also comes with approx. 8 metres of TV lead with a weatherproof plug on one end.

- Includes booster amp
- Compatible with LT-3204 telescopic mast.
- Supplied with other hardware.
- Output 80 dbuV.
- Requires 2 x AAA batteries
- Antenna measures: 750(W) (deployed) x 300(L) x 100(D) (mm) (Folds down for storage)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3143	$59.95	$53.95	$47.90

Outdoor Omni-Directional UHF/VHF Amplified Digital Antenna

With inbuilt low noise and high gain booster, this compact and weather resistant outdoor digital antenna is ideally suited for caravans, boats, and other fixed or mobile applications where space is constrained or harsh environmental conditions require a little extra durability. Excellent wide frequency reception for local free-to-air analogue and digital TV, DAB+ digital radio as well as FM radio transmissions. It can be either base mounted or mast mounted and includes mounting bracket, 12V mains power adaptor and a 12V in-car charger.

Specifications	
FM	87.5 - 108MHz
VHF	174-230MHz
UHF	470-862MHz
Output level	Max 108dB
Impedance	75 ohms
Receiver dish size	350(Dia) x 60(H)mm
Mounting base size	120(Dia) x 70(H)mm

- SMD technology
- Anti-rust and UV protected

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3141	$89.95	$80.95	$71.95

Caravan/RV (General Purpose) Mast

We have had many requests and finally found one. This unit in natural finish anodised aluminium is a telescopic mast suitable for TV and other antennas. It will extend to 1.5 metres in 3 sections. The top section is 27mm dia. which is compatible with almost all TV antenna mounting hardware. The bottom section is 35mm dia. which would easily be accommodated by U-bolt or other clamping hardware (not supplied).

The top section has a sturdy cap and features a slot which enables you to neatly thread the coax lead down through the mast.

- Length extended: 610mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	LT-3204	$24.95	$22.35	$19.70

12VDC HD Digital Set Top Box

Great for use on the road, this high definition set top box will pickup all the digital channels on offer in your locale. You can also plug in a USB drive and record TV in MPEG2 format to watch at a later date

- Output: HDMI, Composite, RF
- USB port for recording and playback
- Cigarette lighter cable included
- Suitable antenna LT-3143 (available separately)
- Dimensions:154(W) x 117(D) x 40(H)mm

Note: Not available in New Zealand

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4921	$69.95	$62.95	$55.95

Wireless Weather Stations

WIRELESS WEATHER STATIONS

Professional Wireless Weather Station with 7" Colour LCD and Solar Powered Sensors

A professional grade weather station coupled with a 7" colour LCD that will measure almost anything planet earth can throw at it. It's capable of displaying temperature, wind speed, wind direction, wind chill, barometric pressure, and dew point. You can see how much rain has fallen in 1 hour, a day, a week, or a month, see the current UV index reading, and even see the current lux measurement outdoors which is great for those who have rooftop solar arrays. Install the sensors outside and the readings will be transmitted wirelessly to the base unit up to 150m away. Minimum and maximum weather values are all recorded along with the corresponding date and time of occurrence. It also features a high/low alarm which will display a visual and give an audible warning when a measurement exceeds or drops below the current record. The threshold for these alarms can be manually configured. The main base is fully solar powered so you need not worry about mains power or constantly adding new batteries. There is a separate indoor sensor that has inbuilt display for temperature, humidity, and barometric pressure.

The interface is beautifully designed and features attractive weather symbols to indicate atmospheric status, everything is clear and easy to read, settings are easily accessible with the buttons on the front of the screen where you can navigate to history, graphs, and setup. The display backlight can be manually turned on/off via the front panel, or automatically at set times so for example it will switch off 8.30pm at night. You can also calibrate values if you happen to notice certain readings are off.

Overall a highly functional weather station brimming with features.

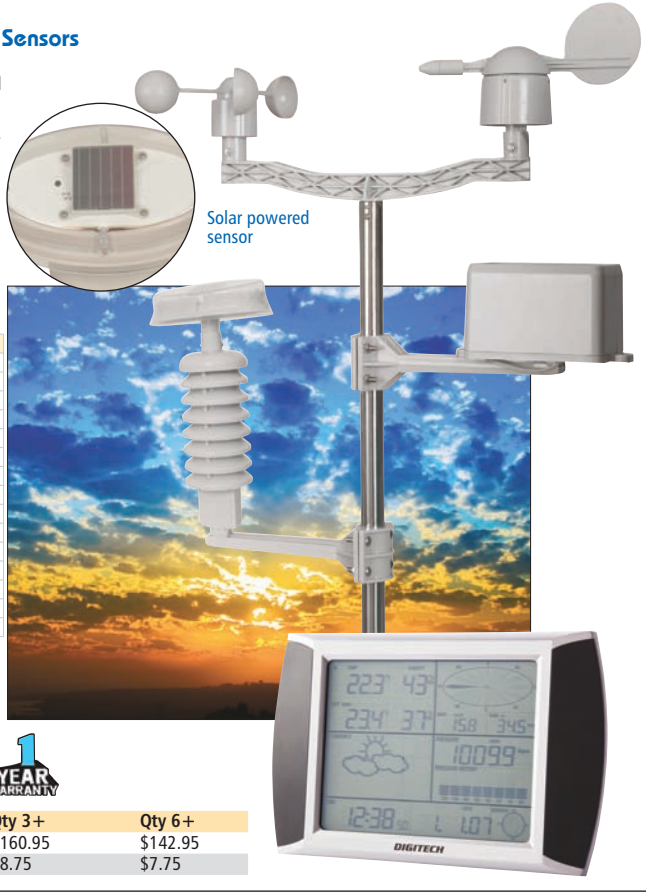
Features:
- Time and date display (HH:MM:SS)
- Alarm clock
- Display night switch
- Records of all minimum and maximum values with time/date of recordings
- microSD Card memory

Specifications	
Outdoor/indoor temperature	-40˚C - 60˚C / -40˚F - 140˚F
Outdoor/indoor humidity	1%- 99%
Wind speed	0-50m/s / 0-100mph -(km/h, knot, mph, bft, ft/s, m/s)
Wind gust	km/h, knot, mph, bft, ft/s, m/s
Wind direction	Degrees, cardinal directions
Wind chill	Yes ˚C / ˚F
Dew point	Yes ˚C / ˚F
Rain gauge	0-9999mm, inch (Daily, weekly, monthly, yearly)
Rain rate	mm/hr, in/hr
Weather forecast symbols	Sunny, partly cloudy, cloudy, rainy, storm
Barometric pressure	300-1100hPA / 8.85-32.5inHg) hpa, in Hg, mm Hg (Absolute, Relative)
UV index	uW/cm2
Solar radiation (lux) meter	0-400k Lux (W/mm2, lux, fc)
Recording interval	1 to 240 mins (tabulated and graphic with zoom)
Wireless sensor transmission range	150m
Mounting hardware	Pole, U bolts, clamps, nuts
Level indicator	Bubble
Display unit dimensions	195(W) x 138(H) x 20(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0369	$299.00	$269.00	$239.00

Touch Screen USB Wireless Weather Station with Solar Powered Sensors

A highly advanced weather station with an unbeatable range of features to keep you fully updated on current and future atmospheric activity. The outdoor sensors are simple to install and will wirelessly transmit data to the base station which interprets and displays the data on the touch screen panel. You can also connect the base station to your PC through USB and upload all recorded weather data for more in-depth analysis. Now supplied with a solar panel with rechargeable batteries, it can be installed remotely and never worry about battery replacement. The sensors will read indoor/outdoor temperature, wind speed, wind chill, wind direction, dew point, humidity, rainfall and barometric pressure and is solar powered so you don't have to think about batteries. The weather tendency indicator will inform you of changing conditions based on fluctuating barometric pressure and there are programmable alarm modes for all of the recordable weather conditions so you will know if a storm is coming or if winds are too gusty for your Sunday picnic. All minimum and maximum weather values are recorded with the time and date of recording and are stored on the base station for your reference. Display unit requires 3 x AA batteries.



Features:
- Solar powered sensors
- Touch screen LCD panel
- Wind speed
- Wind direction
- Wind chill
- Dew Point
- Weather forecast tendency arrow
- Weather alarm modes for: temperature, humidity, wind chill, dew point, rainfall, wind speed, air pressure, storm
- Time display hours, mins, date
- 100 year calendar display
- Weather symbols and barometer tendency display
- Perpetual calendar
- LED backlight

Specificiations	
Indoor temperature range	0°C to 50°C +/- 1.0°C
Outdoor temperature range	-40°C to 65°C +/- 1.0°C
Humidity range	10% - 99%
Hygrometer range	1%RH- 99%RH
Wind chill	Yes
Wind Speed	Yes
Rain gauge	0 - 9999mm
Dew Point	Yes
Wind Direction	Yes
Weather history record	Yes
Barometric Pressure	Yes
Frequency	433MHz
Wireless transmission range	50m
Display unit dimensions	230(L) x 145(W) x 35(H)mm
Height of outdoor mast	570mm (with sensors: 630mm)

Spare part - sold separately
2 x Spare rechargeable alkaline batteries Cat. XC-0343

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Wireless Weather Station	XC-0348	$179.00	$160.95	$142.95
Spare Battery - Pkt 2	XC-0343	$9.95	$8.75	$7.75

WIRELESS WEATHER STATIONS (CONTINUED)

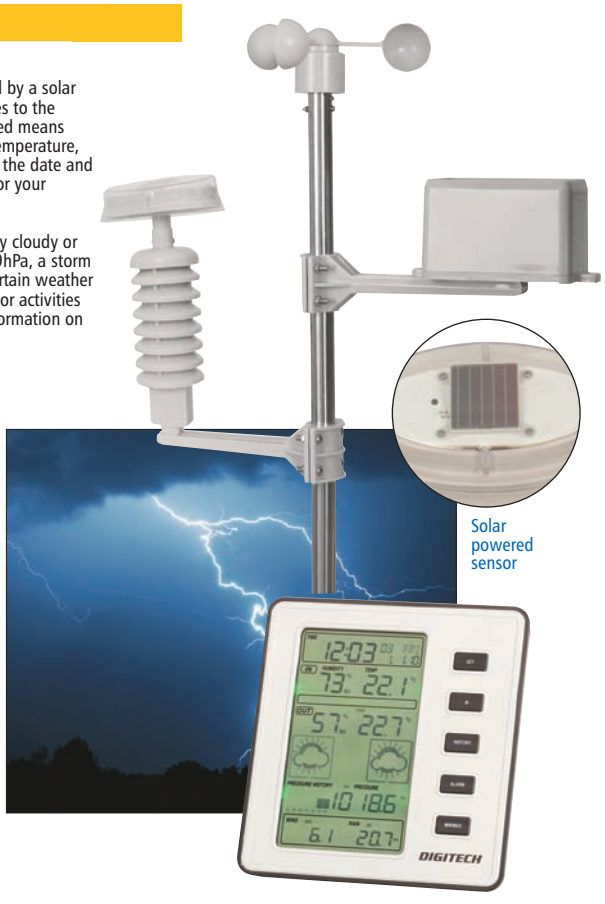
Wireless Weather Station with Solar Powered Sensors

A feature-packed weather station for the enthusiast forecaster. The outdoor sensors are powered by a solar panel and will monitor up to 10 key weather parameters. The data is transmitted up to 50 metres to the indoor base station to keep you updated on current and future weather conditions. Solar powered means you'll never have to think about battery replacement. The station will measure indoor/outdoor temperature, relative humidity, rain, wind speed, wind chill, dew point, barometric pressure and also displays the date and time. All minimum and maximum values with the date and time it was recorded will be stored for your reference on an easy to read display screen.

The unit includes a weather tendency indicator that will display 1 of 4 icons (sunny, cloudy, partly cloudy or rainy) indicating the likelihood of future weather. When the sensors detect a pressure fall of 3 - 9hPa, a storm warning will be displayed on-screen. The storm threshold value is user adjustable. Alarms for certain weather conditions can be programmed to alert you to potential atmospheric hazards. If you enjoy outdoor activities that require specific weather conditions the alarm feature is a great tool to give you accurate information on potential trouble. Base station requires 3 x AA batteries.

Features:
- Solar powered sensor
- Indoor and outdoor temperature display in Celsius or Fahrenheit
- Wind speed display in kmh, mph, knots or Beaufort scale
- Wind chill
- Rainfall data ranging from 1 hour up to 1 month or total since last reset
- Records all minimum and maximum values with time and date of their recordings
- Dew point display Celsius or Fahrenheit
- Weather forecast (sunny, cloudy, partly cloudy, rainy)
- Storm warning alarm
- Weather alarm modes for temperature, humidity, wind chill, dew point, rainfall, wind speed, air pressure, storm warning
- Perpetual calendar

Specifications	XC-0346
Indoor temperature range	0°C to 50°C +/- 10%
Outdoor temperature range	-40°C to 65°C +/- 10%
Humidity range	1% - 99%
Hygrometer range	1%RH- 99%RH
Wind chill	Yes
Wind Speed	Yes
Rain gauge	0 - 9999mm
Dew Point	Yes
Wind Direction	No
Weather history record	Yes
Barometric Pressure	Yes
Frequency	433MHz
Wireless transmission range	50m
Display unit dimensions	150(L) x 30(W) x 160(H)mm
Height of outdoor mast	570mm (with sensors: 630mm)



Spare part - sold separately
2 x Spare rechargeable alkaline batteries Cat. XC-0343

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 3+	Qty 6+
Wireless Weather Station	XC-0346	$129.00	$115.95	$102.95
Spare battery (Pk 2)	XC-0343	$9.95	$8.75	$7.75

1 YEAR WARRANTY

Weather Station with Clock/Photo Frame

Keep tabs on the weather, the time and display photos of the nearest and dearest. A remote sensor sends weather data to the display unit which provides temperature, humidity, trend and forecast information and also displays indoor temperature. Photos can be loaded by a host PC, via SD/MMC card or USB flash drive. Mains plugpack included.

- 12/24 hour clock with alarm
- Weather and photo display
- Mains powered
- Time and date display with DST and time zone
- Wall or desk mount

Specifications	XC-0345
Indoor temperature range	0°C to 50°C +/- 10%
Outdoor temperature range	-20°C to 60°C +/- 10%
Humidity range	20% - 99%
Hygrometer range	20%RH- 99%RH
Frequency	920MHz
Wireless transmission range	50m
Display unit dimensions	200(L) x 150(W) x 30(H)mm

NEW LOWER PRICE

	Cat.	Qty 1+
	XC-0345	$99.00

1 YEAR WARRANTY

Weather Station with Wireless RF Sensor

The internal unit can be either wall or desk mounted and features a large LCD with full clock and calendar functions, dual indoor/outdoor temperature readings, humidity, barometric pressure and weather trend. Supplied with the unit is an external transmitter to measure outdoor temperature.

- Display unit dimensions: 115(L) x 42(W) x 115(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0335	$39.95	$35.90	$31.90

1 YEAR WARRANTY

Weather Station & Tank Level Meter

WEATHER STATION KEYRINGS

Weather Station LCD Keyring

A weather station that fits in the palm of your hand, this nifty LCD keyring shows weather forecast, current temperature, humidity, time and date. It also has an alarm clock with snooze button. Complete with inbuilt LED torch and compass, this mini survival tool is ideal for camping, bushwalking, fishing and the great outdoors.

- Batteries included
- Celsius or Fahrenheit
- Max/min temperature and humidity memory
- Dimensions: 93(H) x 50(W) x 18(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0341	$19.95	$17.70	$15.70

Deluxe Weather Station LCD Keyring

This product is for canoeists, abseilers and other outdoor types. It is a compact weather station, altimeter, timer, alarm clock and ordinary clock (etc.). It also has a nifty little handle that goes straight on to your carabiner. Seriously, this product makes an attractive accessory for outdoorsy types. We make no promises for the weather forecasting function, but we do know that they have been very popular in the UK and we know how obsessed with weather they are!

- Dimensions: 70(L) x 45(W) x 15(D)mm (less handle)

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0358	$24.95	$22.35	$19.70

TANK LEVEL METER

Ultrasonic Water Tank Level Meter with Thermo Sensor

NEW 2013

Keep an eye on your outdoor water tank from the comfort of your own living room, up to 100m away. Installed at the top of your water tank, the transmitter unit measures the water level and temperature using an ultrasonic sensor. You can hang the receiver unit on a wall (hooks) or pull out the stand and place it on your kitchen bench top, table or desk. View your room's temperature, tank temperature and water level (represented by a 10 element bar graph). You can store min/max records and set alarms for specific water levels (high/low) or when empty.

- Water level displayed on a 10 element bar graph
- Min. & Max. records for indoor & tank temp.
- Tank level alarm mode (high/low)
- Tank empty alert
- Low battery indicator
- Tank level updated every 30 seconds or 3 mins
- Wall mount, Free standing
- Long life battery installed in the solar transmitter.
- Battery power: receiver 2 x AA 1.5V (not included), outdoor transmitter: 6 x AAA 1.5V (not included)
- Dimensions: Receiver: 106(L) x 97(W) x 24(D)mm Sensor (into tank): approx 47(Dia.)mm
- Transmission range up to 100m
- Time display (12/24hr)
- Time alarm mode
- Calendar display
- Indoor temp. display (˚C/˚F)
- Tank temp display (˚C/˚F)
- Tank level display (metre/feet)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0331	$69.95	$62.95	$55.95

DESKTOP THERMOMETERS

Indoor Desk Thermometer

Handy desk or table-top thermometers. Measures degrees Celsius with hi and low memory. Tilting bail for standing on desk purposes. Indoor only or indoor/outdoor type.

- Battery included.

Specifications	
Range	-20 - 50°C
Dimensions	64(W) x 72(H) x 18(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Indoor Version	QM-7316	$5.95	$5.50	$4.75

Jumbo Display In/Out Thermometer

One display that shows both the inside and outside temperatures simultaneously. It will also record the minimum and maximum temperatures. The outside temperature sensor is waterproof and is on a 3 metre cable. It also has a tilting bail for standing as well as a keyhole for wall mounting. Jumbo digits for the optically challenged.

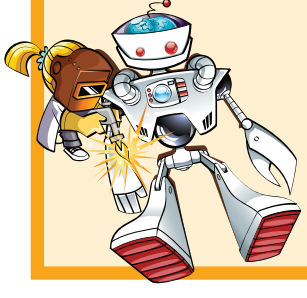
1 YEAR WARRANTY

Specifications	
Temperature range	-39.9°C to 49.9°C
	-39.8°F to 122°F
Battery	Requires AA
Dimensions	95(W) x 140(H) x 22(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7310	$19.95	$18.70	$15.70

Camper Trailer Power Control Box with Digital Power Meter

Makers Name: Neill Thompson **Location: New South Wales**



I recently purchased a camper trailer and the first main aim was to install lights and 12V power sockets throughout. I also wanted to be able to easily control and monitor the power usage with a DC power meter. But there's more - you need to read on...

For more details scan the QR code or go to www.jaycar.com.au/makers

DESKTOP THERMOMETERS (CONTINUED)

Wireless In & Out LCD Thermometer

NEW 2013

Keep an eye on the outdoor and indoor temperature with ease. This thermometer is comprised of two parts. An LCD display/receiver to keep inside and a wireless outdoor temperature sensor which transmits the outdoor temperature back to the display.

- No need to expose the LCD to the elements.
- Great for monitoring computer server rooms, wine cellars, effectiveness of housing insulation, or for simply wanting to know the differentiation in temperature.

Specifications	
Indoor temperature range	0°C to 60°C
Outdoor temperature range	-40°C to 60°C
Display unit requires	2 x AAA batteries
Remote requires	2 x AAA batteries
Transmission frequency	433.92MHz
Receiver dimensions	86(H) x 57(W) x 18(D)mm
Sensor dimensions	68(H) x 50(W) x 21(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0321	$19.95	$17.70	$15.70

Jumbo Display Thermometer/Hygrometer

Displays the temperature and humidity together on the one huge LCD display. It also has a min / max function (memory). Switch between C° and F°.

- Requires AAA battery

1 YEAR WARRANTY

Specifications	
Temperature	-10° - 60°C (14° - 140°F)
Humidity	10 - 99% +/-5%
Accuracy	+/-1°C, +/-1.8°F
Dimensions	110(H) x 100(W) x 22(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7312	$24.95	$23.35	$19.70

Wireless In & Out Thermometer/Hygrometer

NEW 2013

An advanced thermometer/hygrometer capable of measuring indoor and outdoor temperature, as well as relative humidity. The large easy to read LCD acts as a receiver unit for a separate outdoor sensor unit. It will record max and minimum temperatures for quick referral and conveniently displays the time of day. Ideal for temperature or humidity sensitive environments such as museums, greenhouses, or to check if your home and office is too dry or moisture laden. The LCD receiver unit is capable of receiving information from up to 3 sensor units, which are available separately (see Cat. XC-0324).

- Additional sensor available separately - XC-0324.

Specifications	
Indoor temperature range	0 +60°C
Remote temperature range	-45 +65°C
Temperature accuracy	+/-1.0°C
Humidity range	1% to 99%
Transmission frequency	433.92MHz
Transmission range	Up to 100m open air
Power requirements (receiver)	2 x AA alkaline batteries (not included)
Power requirement (remote)	2 x AAA alkaline batteries (not included)
Receiver dimensions	95(H) x 114(W) x 25(D)mm
Sensor dimensions	51(H) x 63(W) x 25(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0322	$29.95	$26.90	$23.70
Extra Sensor	XC-0324	$14.95	$13.35	$11.70

8 Channel Wireless Thermometer/ Hygrometer with Jumbo LCD

NEW 2013

Useful for monitoring temperature and humidity sensitive areas. An oversized receiver/LCD makes for easy reading, up close and from afar. Displays real-time data, comfort and trend indicators and stores min/max records. Can support up to 8 indoor/outdoor sensors.

Features:
- Measures indoor/outdoor temperature and humidity
- Receive up to 8 channels
- Comfort level indicator
- Temperature and humidity trend indicator
- Temperature and humidity min/max records

Specifications	
Transmission frequency	433.92MHz
Transmission range	approx 90m
Indoor temperature range	0°C to 60°C
Outdoor temperature range	-40°C to 60°C
Batteries required	
Receiver requires	2 x AAA batteries (not included)
Sensor requires	4 x AAA batteries (not included)
Dimensions	94(L) x 94(W)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0328	$39.95	$35.90	$31.90

ANEMOMETER

Hand-held Anemometer with Tripod Stand

Measure wind speed in km/h, mph, ft/min, meters/sec or knots for your outdoor activity. It also indicates wind-chill, air temperature, comfort level and displays current, maximum and average wind speed. There is also a beaufort scale bar graph for a quick indication on the wind condition. Supplied with lanyard and tripod.

- Windspeed range: 0.3m/s to 30m/s
- LED backlit display
- Celsius and Fahrenheit selectable
- Temperature range: -29.9 to +59°C
- Temperature resolution: 0.1°C
- Comfort levels: Comfort, Cool, Cold, Extreme & Danger
- 3V button cell battery (CR2032) included
- Low battery detection and display
- Battery life: Approx 12 months
- Measures: 140(H) x 50(W) x 18(D)mm less stand.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1644	$69.95	$62.95	$55.95

Wind Speed Meter/Thermometer (Anemometer)

NEW 2013

This unit is a more sophisticated version of our QM-1644 Anemometer. Firstly, it is capable of measuring wind/airflow parameters at the same time as monitoring temperature.

- Metres/sec; km/hr; feet/min; miles-per-hour; knots
- Cubic metres/minute; cubic feet/minute
- Air temp, 0-50°C (0.1°C resolution)
- Auto power off
- Vane impeller ball bearing mounted
- 1m vane probe lead

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-1646	$99.00	$88.95	$78.95

HEAT MONITOR

Heat Index Monitor

NEW 2013

This unit could save your life. It not only measures temperature and humidity it shows on a simple scale just how dangerous the environment is around you. Many people die of heat stroke every year because they are unaware of the danger of high heat/humidity - especially the elderly.

- Heatstroke alert on 4 levels
- Colour change denoted elevated danger
- Displays ambient temp, humidity
- Clock as well
- Temp -10°C to 60°C
- Requires 2 x AAA batteries (not supplied)
- Dimensions: 30(L) x 59(W) x 90(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7311	$24.95	$22.35	$19.70

Outdoor Power

PORTABLE POWER

150W Can-Sized Power Inverter with 2.1A USB Output

Fits in the car's cup holder, plugs into the cigarette lighter socket and outputs 230VAC to power a variety of 230VAC equipment from a battery charger to a laptop power supply. Also features a USB port with 2.1A output, allowing you to quickly charge many modern electronics gadgets, including power-hungry Tablets. It also features electrical isolation to prevent sudden mains voltage at your cigarette lighter socket.

- Powered by cigarette lighter socket adaptor
- Modified sine wave
- USB Output: 5VDC 2.1A
- Dimensions: 165(L) x 60(Dia.)mm

RELATED PRODUCT...

For our full range of Power Inverters see page 306

	Cat.	Qty 1+	Qty 3+	Qty 6+
150W	MI-5127	$44.95	$40.45	$35.90

Sine Wave Inverter Petrol Generators

1KW, 2KW & 3KW VERSIONS AVAILABLE

4-stroke petrol powered inverter generator with a stable, pure sine wave 230VAC, suitable for all appliances including sensitive electronics and motor powered appliances. No matter what the load is on the generator or the speed of the engine, the output remains very well regulated to 230VAC. The added benefit is that the petrol motor is far better matched to the load, reducing overall size, keeping engine speed in line with the load, reducing noise and increasing fuel efficiency. Features include low oil cut-out, and overload circuit breaker.

MG-4501

MG-4502

MG-4504

RELATED PRODUCT...

1kW, 2kW & 3kW Models available - see page 319 for full details

	Cat.	Qty 1+	Qty 2+	Qty 4+
1kW Sine Wave Generator NEW	MG-4501	$599.00	$569.00	$539.00
2kW Sine Wave Generator	MG-4502	$899.00	$855.00	$809.00
3kW Sine Wave Generator	MG-4504	$1,499.00	$1,425.00	$1,349.00

CARAVAN POWER ACCESSORIES

15A to 10A Mains Power Adaptor with RCD For Caravans

Convert your 15A caravan power lead to fit a 10A power outlet. Ideal if you've parked your caravan for the night at a motel or other property that does not have a 15A power outlet. Features a 10A circuit breaker/RCD in case you accidentally overload the device.

Specifications	
Voltage	240VAC, 50Hz
Max load	2400W 10A
Rated residual current	30mA
RCD type	AC & DC pulse sensitivity
Dimensions	180(H) x 135(D) x 124(W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-4044	$79.95	$71.95	$63.95

Heavy Duty 15A Caravan Extension Leads

Proper heavy duty mains extensions leads with 15A plugs and sockets, and a thick orange flexible cord. The 15A socket end also features an internal LED to indicate that power is present. Perfect for caravans and motorhomes.

	Cat.	Qty 1+	Qty 4+	Qty 10+
10m	PS-4182	$19.95	$17.70	$15.70
15m	PS-4184	$29.95	$26.90	$23.70
20m	PS-4186	$39.95	$35.90	$31.90

AIR COMPRESSORS

12VDC Air Compressors

Powerful air compressors great for a variety of outdoor activities and emergency situations such as pumping flat car/4x4/truck tyres, inflatable boats, air beds, etc. Both models incorporate automatic thermal cut-out for added protection as well as cleanable air filters to keep the units free from dirt and other contaminants. Includes heavy duty battery clamps for secure connection to your 12V power source and extendable coil hoses for reaching those tricky spots. Each unit has anti-vibration mounting feet to ensure they stay planted to the ground and a foam grip handle. Accessory nozzles for pumping bike tyres, balls, and other inflatables included as well as a black carry bag.

Two models available:

High	Flow Air Compressor	72L/Min	MC-7202
Mega	Flow Air Compressor	180L/Min	MC-7200

Specifications	MC-7202	MC-7200
Power	12VDC	12VDC
Gauge	150PSI	120PSI
Current	35A	45A
Max pressure	150PSI	150PSI
Power	420W	540W
Max air flow	72L per minute	180L per minute
Hose	10M PA Hose	5M PA Hose
Dimensions	289(L) x 185(H) x 139(W)mm	345(L) x 215(H) x 150(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
72L/Min	MC-7202	$99.00	$88.95	$78.95
180L/Min	MC-7200	$199.00	$178.95	$158.95

TECH TIP!

How do you know you are getting a good compressor? The real way is to pull the compressor apart and check the piston. A good compressor will have a steel piston in an alloy cylinder, or an alloy piston in a steel lined cylinder. An easier way is to look at the construction of the tyre inflator. Cheap compressors supply a poorly built & flimsy unit. Check ours out.

Caravan Refrigerator Enhancement

Makers Name: Geoff Wild
Location: Victoria

Most 3 way (240V, 12V & LP Gas) caravan refrigerators are designed for Europe and perform poorly in the hot, humid conditions in Australia's north. Most people fit computer fans which are quiet but don't provide much of an airflow. I fitted a blower of the type used in caravan stove range hoods however, without a speed controller, they run flat out and are very noisy. So I purchased a Jaycar Kit (KC-5225) built it and added some LEDs to indicate the fridge's status - now I know my fridge is actually working and the beer stays cold.

For more details scan the QR code or go to www.jaycar.com.au/makers

PORTABLE FOLDING SOLAR PANELS

ZM-9130

Portable Fold-Up Solar Panel Kits

A convenient alternative energy solution for those on the move. Fold it away and store it in the carry bag when not in use, then when you set up camp just fold it out so your batteries (not included) are being charged. A stand is included so you can position the panel for optimum solar capture. Features alligator clamp connections on a 4m lead, has the charge controller included so you can connect directly to your battery (not included) without fear of over-charging, and is supplied with a durable nylon carry bag. Excellent for camping, 4WD, boating etc.

Supplied with PWM Stage Solar Controller

MORE INFORMATION...

80W and 120W now include a 50A Anderson connector on 10m lead

Specifications	ZM-9132	ZM-9130	ZM-9134
Pmax	40W	80W	120W
Rated voltage	12V	12V	12V
Voltage at pmax	17V	17.3V	18V
Current at pmax	2.35A	4.64A	6.67A
Open circuit voltage	21.5V	21.5V	22.5V
Short circuit current	2.61A	5.1A	7.4A
Weight	5.5kg	10.5kg	13.0kg
Dimensions:			
Open	840(W) x 420(H) x 36(D)mm	1090(W) x 623(H) x 36(D)mm	1090(W) x 835(H) x 36(D)mm
Folded	420(W) x 420(H) x 73(D)mm	545(L) x 623(W) x 73(D)mm	545(W) x 835(H) x 73(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 40W	ZM-9132	$249.00	$239.00	$225.00
12V 80W	ZM-9130	$379.00	$365.00	$345.00
12V 120W	ZM-9134	$499.00	$475.00	$449.00

NEW LOWER PRICE

5 YEAR WARRANTY LIMITED

Briefcase Amorphous Solar Chargers

Convenient briefcase sized solar chargers for keeping a car battery topped up while on holidays or in storage. Three sizes for small, medium and large cars or 4WDs. Each terminates in a cigarette lighter plug or alligator clips.

12V 2W Charger Cat ZM-9036
12V 4W Charger Cat ZM-9037
12V 7W Charger Cat ZM-9038

Specifications	ZM-9036	ZM-9037	ZM-9038
Pmax:	2W	4W	7W
Voltage(max)	18V	18V	18V
Current(max)	110mA	220mA	388mA
Dimensions			
Closed	185(L) x 154(W) x 34(H)mm	237(L) x 229(W) x 34(H)mm	335(L) x 250(W) x 36(H)mm
Open	304(L) x 185(W) x 17(H)mm	445(L) x 237(W) x 17(H)mm	492(L) x 335(W) x 18(H)mm

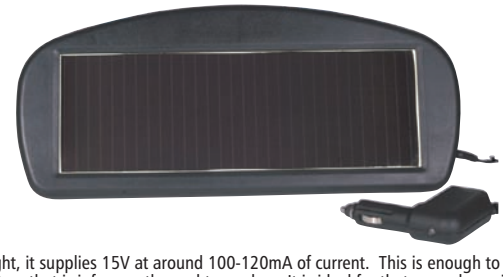
	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 2W	ZM-9036	$19.95	$17.70	$15.70
12V 4W	ZM-9037	$34.95	$31.45	$27.90
12V 7W	ZM-9038	$59.95	$53.95	$47.90

1 YEAR WARRANTY

NEW LOWER PRICE

MOBILE BATTERY CHARGERS

Smart Solar Battery Charger - 100 to 120mA 15V



In sunlight, it supplies 15V at around 100-120mA of current. This is enough to keep a 12V battery that is infrequently used topped up. It is ideal for that second car, ride on lawnmower, tractor, boat, etc. It is housed in a plastic case, and has an output lead to cigarette lighter plug, with a LED which illuminates when the solar panel receives a charge.

Note, some cars will require this to be directly wired to the battery, as the cigarette lighter socket is disconnected when the ignition is switched off. Use the car lighter socket to battery clips PP-2007 for cars with switched lighter socket.

- Size: 370(L) x 160(W) x 20(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V	MB-3501	$29.95	$26.90	$23.70

Waterproof Solar Panels

ZM-9016

ZM-9018

These solar panels are ideal for charging sealed lead acid batteries. 2 models available. Supplied with mounting brackets, blocking diode, 2m output lead cable with alligator clips. Mounted in a plastic weatherproof case. Also ideal for marine use. They can be mounted on their brackets, and moved to follow the sun, or can be mounted flat on a surface. They are tough, and can be walked on if mounted flat (on a yacht or boat). Ideal for charging batteries in cars used infrequently.

Specifications	ZM-9016	ZM-9018
Wattage	1.26W	4.5W
Voltage (max)	18V	18V
Current (max)	Up to 70mA	Up to 250mA
Panel Dimensions	159(H) x 175(W) x 17(D)mm	187(H) x 255(W) x 17(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 1.26W	ZM-9016	$44.95	$42.90	$40.45
12V 4.5W	ZM-9018	$99.95	$94.95	$89.95

Power Systems

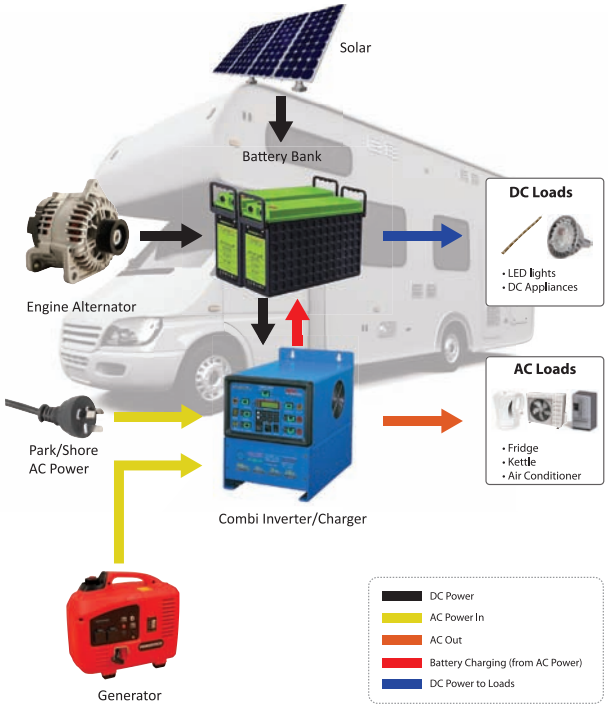
CARAVAN, RV & MARINE POWER PACKAGES

For those who are serious about taking the creature comforts with them whilst touring our fantastic country, or navigating our beautiful oceans and waterways, a serious power system is a must have. Here we have put together a range of power systems that will cater to the varying creature comfort levels and power demands of almost any caravan, RV, motorhome or marine vessel - ranging from a smaller entry level pack to a more serious system that packs a lot of punch.

At the heart of these power systems is the fantastic, feature rich Invertek inverter-chargers from Rich Electric - a unit you can rely upon for serious power delivery in even the most extreme conditions. In order to store the power, we have included the industrial grade Amaron Sleek AGM deep cycle batteries, which feature a small footprint and seriously high power density. Of course all the other parts are included to provide solar power and dual battery charging - a complete system to make the most of cruising or touring holidays.

How it Works

1. Whilst the engine is running, the alternator provides DC charging into the house batteries via the dual battery isolator (or dual battery charging system), giving the bulk of charge whilst you are cruising around
2. When camped up or anchored, the solar panels convert sunlight into DC electricity, which is then used to charge the house batteries via the solar charge controller.
3. The SuperCombi/CombiPlus inverter-charger converts the stored DC electricity in the house battery to 240VAC electricity to run the appliances.
4. When AC park/shore power is plugged in (i.e. when at a powered site/mooring), the SuperCombi/ CombiPlus uses that AC power to both charge the house batteries and deliver power to the AC loads.
5. DC appliances and loads can be powered directly from the house battery, with an option for load control (load control on Super- Combi only)
6. A 240VAC generator can be incorporated to provide auxiliary power to charge the house battery and power the 240VAC appliances.



12V/24V Battery Monitoring System with 3.5" Touch Screen

NEW 2013

In mobile power applications such as caravan, RV, marine, etc, being able to actively monitor the condition of your battery bank is both useful and prudent to ensuring you keep your batteries in top condition. Measuring the battery voltage alone is one method of monitoring a battery, but doesn't give a very clear picture of how much charge you actually have left. Using state of the art algorithms to measure current (and correct for Peukert's law), this battery monitor accurately measures the state of charge of the battery, giving you not only a battery voltage, but an actual amp-hour capacity or percentage remaining - just like a fuel gauge for your battery. Simply install the current shunt in line with your battery, and the unit accurately measures what is going into and out of your battery bank, displaying information on the screen accordingly. Scrolling through information and programming is made simple with the touch screen interface and simple menus. Additional features include programmable auxiliary outputs, dual battery isolation (external solenoid required), power consumption logging, multiple information screens, and more.

- 3.5" TFT colour touch screen display
- Displays battery capacity, like a fuel gauge for your battery
- Uses proper "state of charge" algorithms
- Displays both voltage and Ah capacity of the battery
- Start battery and house battery voltage display
- Bi-directional dual battery isolation control (external solenoid/relay required)
- Programmable relay outputs can be used for low voltage disconnect/reconnect, remote generator start, etc.
- Touch screen input for user control and programming
- Suitable for 12V or 24V battery systems
- Attractive panel mount display hosing
- Upgradeable firmware

Specifications	
Measuring current	+/-500A max
Supply voltage	4-30VDC
Current consumption	35-190mA
Sample rate	3S/s
Screen resolution	320x240, 16-bit colour
Panel cut-out	92x74mm
Dimensions	96(W) x 79(H) x 20(D)mm

Note: Due mid 2013

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6182	$349.00	$315.00	$279.00

1 YEAR WARRANTY

CARAVAN, RV & MARINE POWER PACKAGES (CONTINUED)

Caravan/Marine Package #1

12V-1500W, 160W Solar, 150Ah Battery

Performance
- Approx. 1.3kWh of stored battery power
- Approx. 0.4kWh (35Ah) average daily solar charging

Suitable for
- Most moderately powered household AC appliances
- Kettle, toaster, microwave (but only one at a time)
- Efficient LED lighting
- Efficient AC or DC fridge
- Laptops, DVD players, LCD TV, etc
- CombiPlus 1500W CAN run an efficient 2kW aircon system (but the battery wont last very long)

Includes
- 2 x 80W monocrystalline high efficiency solar panels
- 12V 150Ah "sleek" deep cycle AGM battery
- Invertek CombiPlus 12V 1500W continuous (3000W max) inverter charger (70A charging)
- Powertech 12V 20A PWM solar charge controller
- Powertech 12V 100A dual battery isolator (adjustable VSR)
- Solar panel connectors and joiners
- Mega fuses

Note: Refer to individual products for warranty details.

	Voltage	Watts	Cat.	Qty 1+
	12V	1500W	MP-9011	$3,490.00

Caravan/RV/Marine Package #2

12V-1500W, 320W Solar, 300Ah Battery

Performance
- Approx. 2.6kWh of stored battery power
- Approx. 0.8kWh (70Ah) average daily solar charging

RELATED PRODUCT...
See NEW Battery Monitor on page 274

Suitable for
- Most moderately powered household AC appliances
- Kettle, toaster, microwave (but only one at a time)
- Efficient LED lighting
- Efficient AC or DC fridge
- Laptops, DVD players, LCD TV, etc
- SuperCombi CAN run an efficient 2kW aircon system (for a limited amount of time)

Includes
- 4 x 80W monocrystalline high efficiency solar panels
- 2 x 12V 150Ah "sleek" deep cycle AGM batteries
- Invertek SuperCombi 12V 1500W continuous (3000W max) inverter charger (70A charging)
- SunStar 60A PWM solar charge controller
- Invertek 140A dual battery charging system
- CombiNet data leads
- Solar panel connectors and joiners
- Mega fuses

Note: Refer to individual products for warranty details.

	Voltage	Watts	Cat.	Qty 1+
	12V	1500W	MP-9013	$5,090.00

Motorhome/Marine Package #3

24V-3000W, 700W Solar, 300Ah Battery

Performance
- Approx. 5.2kWh of stored battery power
- Approx. 1.8kWh (74Ah) average daily solar charging

Suitable for
- Most household AC appliances (preferably efficient)
- Kettle, toaster, microwave (bearing in mind max power output)
- Efficient LED lighting
- Efficient AC or DC fridge
- Laptops, DVD players, LCD TV, etc
- SuperCombi 300W CAN run an efficient 3kW aircon system, or 6kW inverter type split system (consider battery capacity though)

Includes
- 4 x 200W monocrystalline high efficiency solar panels
- 4 x 12V 150Ah "sleek" deep cycle AGM batteries
- Invertek SuperCombi 24V 3000W continuous (6000W max) inverter charger (70A charging)
- SunStar 60A PWM solar charge controller
- Invertek 140A dual battery charging system
- CombiNet data leads
- Solar panel connectors and joiners
- Mega fuses

Note: Refer to individual products for warranty details.

	Voltage	Watts	Cat.	Qty 1+
	24V	700W	MP-9015	$8,290.00

Power Systems

RECREATIONAL SOLAR PACKAGE DEALS

Clean renewable energy wherever you go. Solar-convert a 4WD or caravan to generate sufficient power to operate several appliances - including a laptop, portable lighting, CB radio and 12-24V camping electricals. Just add a battery or two for a self-sustained solar powered setup.

Four recreational solar package deals to choose from:

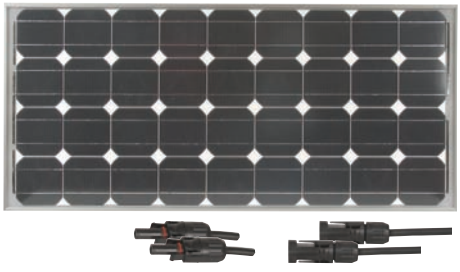
Standard Package

80W

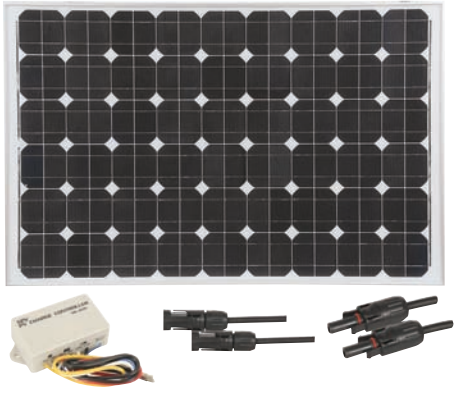
Includes:

• 1 x 80W monocrystalline solar panel	Cat ZM-9097
• 1 x 12V 8A charge controller	Cat MP-3720
• 2 x female PV connector	Cat PS-5100
• 2 x male PV connector	Cat PP-5102

Note: See individual products for warranty details.



Voltage	Watts	Cat.	Qty 1+
12V	80W	ZM-9300	$280.00



Premium Package #1

120W

Includes:

• 1 x 120W monocrystalline solar panel	Cat ZM-9098
• 1 x 12V 8A PWM charge controller	Cat MP-3720
• 2 x female PV connector	Cat PS-5100
• 2 x male PV connector	Cat PP-5102

Note: See individual products for warranty details.

Voltage	Watts	Cat.	Qty 1+
12V	120W	ZM-9301	$390.00

Premium Package #2

160W

Includes:

• 2 x 80W monocrystalline solar panel	Cat ZM-9097
• 1 x 12V 20A PWM charge controller	Cat MP-3129
• 3 x female PV connector	Cat PS-5100
• 3 x male PV connector	Cat PP-5102
• 1 x solar panel Y-lead 2 socket to 1 plug	Cat PS-5110
• 1 x solar panel Y-lead 2 plug to 1 socket	Cat PS-5112

Note: See individual products for warranty details.

Voltage	Watts	Cat.	Qty 1+
12V	160W	ZM-9303	$610.00

Premium Package #3

240W

Includes:

• 2 x 120W monocrystalline solar panel	Cat ZM-9098
• 1 x 12V 30A charge controller	Cat MP-3722
• 3 x female PV connector	Cat PS-5100
• 3 x male PV connector	Cat PP-5102
• 1 x solar panel Y-lead 2 socket to 1 plug	Cat PS-5110
• 1 x solar panel Y-lead 2 plug to 1 socket	Cat PS-5112

Note: See individual products for warranty details.

Voltage	Watts	Cat.	Qty 1+
12V	240W	ZM-9306	$850.00

Price increases of domestic electricity, seem to be constantly in the news these days. It does not seem fair that elderly people - many on pensions - are forced to worry about these things. We seem to reguarly get calls from 'India' or somewhere else inviting us to change our incumbent electricity supplier for someone else because of some sort of a 'deal'.

We like many of you believe that this is frankly, a disgrace. The government has allowed the distribution & marketing of electricity to become far too complicated! What can we do about it, probably nothing.

What HAS happened is that there is now an enormous amount of interest in the subject of electrical power. People are far more aware of their power consumption & the fact that they no longer have to be 'chained' to a powerpoint.

In keeping with this we have developed a range of Energy Monitors, Generators (both fossil fueled & renewable) & Power Distribution Systems to cater to this interest.

Browse through the following pages. You will be amazed by the products that have developed.

You never know we may even have something that will save you money.

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MONITOR YOUR POWER & SAVE

Mains Power Meter

This intelligent power meter simply plugs into a normal power point (GPO) and turns it into a real-time power monitoring outlet. You can enter the local price of your electricity and the meter will tell you exactly how much the appliance is costing to run. In addition, the power meter tracks the power used and can display the instantaneous voltage or current being drawn as well as the peak levels that have been drawn. The meter has backup batteries so it will not lose the stored data during a blackout or moving from point to point.

- Simple to install and a valuable tool for monitoring your power consumption.

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
MS-6115	$19.95	$17.70	$15.70

Deluxe Large Screen Power Meter with 1m Extension Lead

NEW 2013

This deluxe power meter allows you to monitor the energy consumption of an appliance with the added convenience of being able to read the large LCD screen via an extension cord. It will instantly display the voltage, wattage or cost usage of your hard to reach appliances such as fridges, heaters or dishwashers.

- Easy to read large display
- Max load: 10A/2400W
- Supplied with 1m extension cable
- Dimensions: 160(L) x 73(W) x 38(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
MS-6119	$29.95	$26.90	$23.70

Deluxe Mains Power Meter with CO_2 Measurement

In addition to telling you the cost of electricity consumption of an appliance plugged into it and the amount of power used in kilowatt hours, this deluxe main power meter will tell you how many cumulative kg of CO_2 the appliance is putting into the atmosphere. It makes calculations based on known rates of CO_2 emissions from a typical coal-fired power station. It is a very effective tool in empowering people to do something about global warming issues.

- Extra large LCD for easy reading
- Battery included
- Dimensions: 120(L) x 58(W) x 40(H)mm

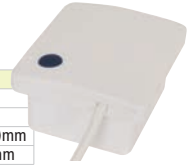
1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
MS-6118	$29.95	$26.90	$23.70

Mains Wireless Power Monitor

Monitor and manage your household's electricity consumption simply and easily. With the sensor unit installed in your fuse box, your household power usage data is wirelessly transmitted to the indoor display unit, giving you instantaneous information on the power usage of your whole house. At a glance you can see your household energy consumption and energy costs real time. The indoor LCD receiver unit runs on 2 x AA batteries so you can carry it around with you to see what instant effect turning equipment on and off has, or you can leave it sitting in the supplied wall bracket. Batteries included.

- Electricity usage (watts), cost & time displayed
- Suitable for single phase only



Specifications	
Wireless range	50m
Frequency	433MHz
Display unit	101(H) x 80(W) x 42(D)mm
Sensor unit	75(L) x 60(W) x 35(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
MS-6160	$79.95	$71.95	$63.95

Power Monitoring

MONITOR YOUR POWER & SAVE (CONTINUED)

Wireless Energy Monitor for Smart Meters

See your household electricity consumption in real time. This meter helps you conserve electricity by showing your usage and costs as you use it. Use the historical records and bar chart analysis to find out how much energy and money you can save. Program the meter with your electricity bills to estimate the usage cost per hour, day, month or any time period you choose. Installation is easy, simply attach the LED sensor to your smart meter, no finding cables to attached clamp sensors to.

Monitor Displays:
- Current electricity usage and costs
- Estimated per hour usage and costs
- Accumulated electricity usage over any time period

Pack includes:
- Wireless Energy Monitor
- 433MHz Transmitter
- Optical Sensor (500mm cable)
- Mounting hardware
- 4 x AA batteries

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6164	$99.00	$88.95	$78.95

Mains Power Monitor with USB Interface

Monitor the energy consumption of your entire home and see just how much electricity your appliances use. A transmitter and sensor unit is installed into your meter box, and wirelessly transmits your power usage data to the indoor display unit, which displays real time power, cost and CO_2 emissions as well as daily high and low usage readings, and monthly and yearly totals. With the real time power display, you can see the effect of turning off individual appliances that sit in standby (such as TVs, HiFi, computers), and work out just how of an effect that has on your power bills! The unit stores up to 2 years of data, which can be downloaded via USB to your computer for further analysis to help you really scrutinise and save on power bills.

As they say, the greenest watt is the one saved. It's also the cheapest!

- Uses 433MHz to wirelessly transmit data
- Transmitter is battery operated (2xD, included)
- Display unit uses mains adaptor
- Display can also use 3 x AAA batteries for short periods
- Displays power, cost, CO_2 and temperature
- Works on single and 3-phase systems (3-phase requires additional sensor pack, MS-6166)

Specifications	
Max sensor current	100A
Min sensitivity	0.1A
Transmission range	up to 40m

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6165	$119.00	$106.95	$94.95
Extra sensor to suit	MS-6166	$29.95	$26.90	$23.70

Grid-Connect Solar Power Monitor with USB interface

Anyone who has invested in a grid-connected solar power system on their property would of course want to know just how much solar power they are producing, and how much that is going to reduce their power bills. This grid-connect solar power monitor measures the power consumption of your home, the power being produced by your solar array, and also gives you a "balance" of the power you are consuming versus what your solar array is producing. It also displays the costs, with 3 tariffs for the electricity pulled from the grid, and a feed-in tariff for your solar production. Of course you also get a "net cost" that deducts the solar feed-in tariff amount from the electricity you pulled from the grid. Two wireless transmitters sit inside your meter box with attached sensors (one for your home circuits, and one for your solar inverter output) that wirelessly transmit the power information to the indoor display unit. The indoor display shows up all the relevant information on the large LCD display, with programming and options controlled by the front panel buttons. For those who want to get a little deeper into their solar power production and household consumption habits, you can connect the indoor display unit to your PC or laptop, and download the historical data (software available on the Watts Clever website). The wireless transmitters are powered by 2xC batteries each, whilst indoor display is powered by the included 240V AC adaptor with 3xAAA batteries for backup power.

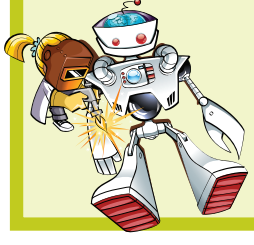
NOTE: Only works with NET-METER grid-connect solar systems.

- Uses 433MHz to wirelessly transmit data
- Sensor current: up to 100A, 0.1A sensitivity
- Transmitters battery operated (4xC included), last for over 2 years
- Display unit uses mains adaptor
- Display can also use 3 x AAA batteries for short periods (not supplied)
- Displays solar power, household power, costs, overall power and costs
- Stores up to 2 years of data
- Cost can be calculated using up to 3 tariff rates, plus 1 feed-in tariff
- Clock, temperature, battery level and channel displayed
- Works on single and 3-phase systems (3-phase requires additional sensor pack, MS-6166)

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6167	$149.00	$133.95	$118.95
Extra Sensor to suit	MS-6166	$29.95	$26.90	$23.70

Solar Powered Hydroponic Garden

Makers Name: John Glasgow **Location: New South Wales**



I was interested in setting up a small hydroponic garden and didn't want to run 240V across the yard. Solar power was the answer. Hydroponics require fertiliser infused water to be pumped at regular intervals onto the plants. The Garden has been in operation for awhile and produces great tasting strawberries.

For more details scan the QR code or go to www.jaycar.com.au/makers

MAINS OUTLET CONTROL & PROTECTION

IR Controlled Wireless Mains Sockets

These IR controlled wireless mains sockets allow you to turn the power to your appliances or equipment ON or OFF by using an otherwise unused button on an existing remote control. Simply program the sockets and assign them to whatever unused button you want on your TV or other remote control to turn the sockets ON and OFF - no need for yet ANOTHER remote control! Allows multiple sockets to be controlled from the one button or assign one button per socket; it's entirely up to you. Includes IR receiver units and 2 wireless mains sockets, extra sockets are available separately with a maximum of 200 sockets per IR receiver unit.

- Up to 20m range
- 10A, 2400W rated
- Frequency: 433MHz
- Includes 2 x AA Alkaline batteries (for IR receiver unit)

Spare Wireless Mains Socket MS-6157

	Cat.	Qty 1+	Qty 4+	Qty 10+
IR Controlled Mains Socket	MS-6158	$39.95	$35.90	$31.90
Spare Mains Socket	MS-6157	$14.95	$13.35	$11.70

Wireless 3 Outlet Mains Controller

Simply plug in any mains appliance rated up to 10A and use the remote to turn each one on or off individually, or control all of them together. One of the outlets also has an LED night light that's also operated with the remote, so you can see where you're going if you have to get up during the night for the elderly, disabled or for making sure the TV and other appliances are turned off at the mains before you go to bed.

- 433MHz
- Remote battery included
- 10A, 2400W rated
- Remote measures: 125(W) x 45(H) x 17(D)mm

MS-6142

SPARE MAINS OUTLET WITH LIGHT
Cat MS-6143

MAINS OUTLET/LIGHT WITH REMOTE
Cat MS-6145

MS-6145

MS-6143

	Cat.	Qty 1+	Qty 4+	Qty 10+
Wireless 3 Outlet Mains Controller	MS-6142	$44.95	$40.45	$35.90
Spare Mains Outlet with Light	MS-6143	$17.95	$15.95	$14.35
Mains Outlet/Light with Remote	MS-6145	$24.95	$22.35	$19.70

Mains Standby Power Saver with IR Receiver

Save on energy bills, reduce your carbon footprint and prolong the lifespan of your electricals. This energy saving device eliminates the needless power consumed by your appliances when they are in standby or idle mode. With your appliances plugged into this unit, once it detects that they are in standby mode, it will switch them off completely after a short delay. The easy-program infrared receiver will read your remote signals, so switching all your appliances on again is as simple as pressing the on button on the remote control for your TV, DVD, or home theatre system. Saving energy has never been this easy.

- Dimensions: 128(H) x 65(W) x 40(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6146	$19.95	$17.70	$15.70

Footswitch Operated Mains Outlet

Some powerpoints are very inconvenient to get to - you have to crawl under tables or behind furniture to get to them. Solve the problem easily by operating them with this convenient footswitch. Simply connect any mains operated device to the GPO and turn it on or off remotely from up to 2.8m away. Ideal for the elderly or disabled.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6144	$19.95	$17.70	$15.70

Mains Surge Protectors

Mains surge protectors are a must for protecting valuable equipment against damage. Unknown to the majority of consumers, the voltage coming out of the power point can and will fluctuate daily, even without major occurrences like lightning strikes. These two mains surge protectors alleviate the majority of problems caused by these increases in voltage which damage delicate and expensive appliances connected to your power outlets.

Each model has protection across active-neutral and active-earth and is fully approved for electrical safety. Providing adequate protection against most surges in mains voltages, they can save you many times the cost of these units in repairs or insurance claims.

Two models available:

DOUBLE POWER OUTLET PROTECTION
Cat MS-4015

SINGLE POWER OUTLET PROTECTION AND PHONE PROTECTION
Cat MS-4017

MS-4015

MS-4017

Specifications	MS-4015	MS-4017
Load rating	240VAC 50Hz 10A	240VAC 50Hz 10A
Energy absorption	175J	175J
Surge current	6000A	6000A
Max impulse breakdown voltage		1kV
Max impulse discharge current		10kA

	Cat.	Qty 1+	Qty 4+	Qty 10+
Double Power Point	MS-4015	$10.95	$9.75	$8.75
Single Power Point & Phone	MS-4017	$12.95	$11.35	$10.35

Surge Protected Mains Double Adaptor with 2 x USB Ports

Provides 2 x mains sockets and 2 x USB sockets for recharging all manner of Smartphones and USB powered gadgets. Features a green grounded LED and red protected LED. Surge protected so you don't fry your valuable gadgets in the case of any power spikes.

Specifications	
USB socket output	5V at 1A
Dimensions	91(W) x 72(W) x 55(D)mm
Voltage	230-240VAC
Max current	10A
Max Power	2400W
Max energy	525J
Max spike current	18000A
Noise filter	150kHz-100MHz
Output Voltage	5VDC
Out Current	1A
Output Power	5W

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PP-4037	$17.95	$15.95	$14.35

Rotating Surge Protector with 2 x USB Outputs

More than your average surge protector, it features a 90˚ rotating design for easy GPO switch access and 2 USB charging ports as well as the surge protection being greater than many powerboards. The USB outputs provide 2.1A (total) for fast charging for your iPad®, iPhone®, iPod® or other power hungry devices without wasting another power point. This compact unit also has illuminated indicators showing that power and surge protection are operating.

Specifications	
USB Ports	2.1A total
240VAC 10A	2400W rated
Surge Current	36,000A
Energy absorption	918J
Dimensions	112(H) x 57(W) x 42(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-4027	$29.95	$26.90	$23.70

Single RCD (Safety Switch) Outlet

RCDs (residual current devices), also commonly called safety switches, are designed to cut the power in a fraction of a second in the event of a fault condition, thereby preventing electrocution. The electrics in your house may be too old to have RCDs installed, or you might want to use a power tool outdoors on an outlet that doesn't have an RCD fitted - use this handy portable one instead. Buy one right now if you don't have RCDs already

Note: RCDs are not a substitute for common sense around mains electricity. While they will work in most situations, they may not in some cases and are not a substitute for current overload devices such as fuses and circuit breakers. Wiring, appliances, leads and power outlets must always be maintained in a safe condition.

- Test function
- Reset button
- 10A 240V rated

	Cat.	Qty 1+	Qty 4+	Qty 10+
10A 240VAC	MS-4013	$27.95	$24.95	$22.35

Mains Power Control

MAINS OUTLET TIMERS

24 Hour Mechanical Mains Timer

Control any 240V mains appliance rated up to 10A. Turn the heater on before you get up in winter, turn the lights on or off when you're out or control a watering system. Simply rotate the dial to the time you want, then switch it on.

- Suits any 240V 10A GPO.
- Size: 120(H) x 76(W) x 50(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6112	$9.95	$8.75	$7.75

Digital Mains Timer Switch Modules

Ideal for automating your heating & lighting or practically any other switching application that requires multiple unattended switching cycles. The timer has eight on/off settings that can be programmed to function on any day, or combinations of days across the week. Each of the on/off settings can be set independently. Each On/Off setting can be associated with a range of days from a single day to every day, thus giving 56 possible on/off cycles per week.
Two models available.

- 12VDC supply voltage
- Switching capacity: 16A @ 240VAC

Cat AA-0361

- 240VAC supply voltage.
- Switching capacity: 30A @ 240VAC

Cat AA-0362

	Cat.	Qty 1+	Qty 4+	Qty 10+
16A 12VDC	AA-0361	$49.95	$44.90	$39.90
30A 240VAC	AA-0362	$49.95	$44.90	$39.90

Mains Timer with LCD

Mains timers have been common in households for many years but most are of low quality and lacking in features for more advanced timing. Our model is manufactured from quality components to provide long term reliable service and 100% electrical safety approved so you can use it with confidence. Featuring 8 on/off programmes across 16 combinations of days or blocks of days for unrivalled flexibility. In addition, there is a random function which will turn devices on and off at unspecified times of the day and a one touch "summertime" button to easily convert to daylight saving time when it arrives. Internally this unit has a switching contact rated at 30 amps, not 10 amps like the cheap ones from the hardware store. While you cannot connect a load exceeding 10 Amps to this unit, it does allow you to use it with electrical items with high start-ups like HID lighting ballasts which destroy cheap units.

- Great for indoor gardening, hydroponics, security lighting and much more.

1 YEAR WARRANTY

POWERTECH

Specifications	MS-6110
Voltage	220-240VAC 50Hz
Switching contact	30 amp Internal
Max load	10A, 2400W
Operating temperature	-10 ~ +40° C
Operating modes	12 or 24 hour
Min setting time	1 minute
Accuracy	+/- 1 minute per month
Battery backup	Ni-MH 1.2V providing > 100 hours

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6110	$24.95	$22.35	$19.70

POWERBOARDS

4 Way Smart Powerboard with Energy Meter

This 6 way powerboard is perfect for saving on standby power consumption. As you know, many devices have a "standby" power usage even when turned off, which can only be eliminated by turning the device off at the power point. There is one outlet that is always on. A second outlet is the "smart" outlet, and the remaining four outlets are the "green" outlets. When the device plugged into the "smart" outlet is switched off, the smart powerboard will kill power to the four "green" outlets, eliminating their standby power usage. This is perfect for a home theatre system, home office or computer. Coupled to this, the powerboard also features an energy meter that tells you the energy consumption of the devices plugged into the smart powerboard; in watts, cents per hour or CO_2 kg per hour. Display is for both cumulative and time elapsed. Also features surge protection, overload, spike and noise filtering. Settings and data saved during power failure.

- EMI power filter
- Automatic ON/OFF Switch
- Energy meter w/CO_2

Specifications	
Power consumption	<1kW
Max current	19,500A, 630 joules
Max continuous load	10A, 2400W resistive
Power cord	900mm long
Measures	385(L) x 60(W) x 30(D)mm

1 YEAR WARRANTY NEW LOWER PRICE

	Approval	Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way	SAA110050EA	MS-6152	$49.95	$44.90	$39.90

4 Outlet Remote Control Powerboard

Eliminate power waste from standby power and control up to 4 mains appliances individually. Simply plug them into the powerboard as normal, then use the remote to turn each device on or off. This makes it much easier to turn off devices like hi-fi or home theatre components as they tend to be inaccessible and behind cabinets. It will save you money on your power bill. Each remote is coded to avoid Interference.

- One-touch synchronisation
- Overload circuit-breaker protection
- Surge and spike protection
- LED power indicator
- Can be coded with up to 5 different remotes
- Each outlet switched individually
- Not suitable for use with UPS or Inverters (modified or sine wave)

Specifications	
Control freq	433.92MHz
Range	50m
Load rating	10A, 2400W
Dimensions	150(L) x 80(W) x 35(H)mm

1 YEAR WARRANTY NEW LOWER PRICE

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way	VO7950	MS-6150	$49.95	$44.90	$39.90

5 Way Remote Controlled Powerboard

NEW 2013

Powerboards often sit in hard to reach places so they're usually hard to turn off in order to reduce wasteful power consumption from devices in standby mode. There are 4 switched sockets for general electrical appliances and 1 socket designed for appliances that always stay on such as telephones, modems, or medical equipment. With the remote control, devices connected to the 4 switched sockets can be switched off/on individually or all 4 can be switched off simultaneously. LED status indicators sit above each socket and the board features a manual switch in the event your remote goes walkabout. The remote is uniquely coded to avoid interference with other remotes.

Powerboard Specifications:
- Rated Voltage: 240VAC 50Hz
- Total Load: 10A 2400W
- Overload Protection: 10A resettable
- Surge protection: 30,000A 1050 Joules
- Standby power consumption: <0.5W
- Cord length: 900mm
- Dimensions: 387(L) x 65(W) x 30(D)mm

Remote specifications:
- Transmission frequency: 433.92MHz
- Includes 1 x CR2032 battery
- Dimensions: 97(L) x 39(W) x 15(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
5 Way	MS-6154	$59.95	$53.95	$47.90

POWERBOARDS (CONTINUED)

8 Way High End Powerboard with Surge Protection

Ideal for home theatre, recording studio or any other application where you have high-end gear connected. Surge protection and EMI/RFI filtering are provided for the mains power to all your equipment and each socket is protected three ways: through active, neutral and earth. Additional protection is provided by the built-in circuit breaker. This powerboard also has telephone protection (1 input, two outputs so doubles as a splitter), data protection for a network connection, satellite / cable TV video protection, and protection for the TV antenna. We're so confident of this product that we offer a $50,000 Connected Equipment Warranty. See website for details.

- 8 surge and spike protected outputs
- Separate telephone/data line and TV antenna/cable TV surge and spike protection
- 10 amp resettable overload circuit breaker
- Flame retardant enclosure
- Protection neon indicators
- Recessed power switch
- Two outlets spaced further apart to accept plugpacks
- TV Surge Protection: Gas tube arrestor
- DC Strike Voltage: 230 to max. 600 volts
- Surge current: 4500A
- Energy Dissipation: 225 joules
- Response Time: <10ns

Specifications - Power Filter	
Surge protection	Metal oxide varistors
Supply voltage	230-240V
Current rating	10A max. 2400 watt
Protection mode	A-N, N-E, E-A
Max surge current	144,000A
Typical capacitance	400pF
Clamping voltage (@50A)	<775V
Energy absorption	4300 joules
Response time	< 2 ns
Filtration	EMI /RFI

Specifications - Telephone Line Protection	
Filter type	Gas tube arrestor
Surge current	1200A (1kV/μs)
Impulse discharge current	10kA (8/20μs)
Capacitance	<5pF
Clamping voltage	600V

Leads included
1.8m TV coax plug to TV coax plug
1.8m RJ45 to RJ45
1.8m RJ45 to RJ12
1.8m F61 plug to F61 plug

MONTHLY SPECIALS
Look out for our monthly promotions in store now!

POWERTECH

Type	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
8 Way	N18812	MS-4029	$79.95	$71.95	$63.95

2 YEAR WARRANTY

Power Tower - 8 Way Vertical Powerboard with USB Charging

Not only does this vertical power board have excellent safety and surge protection characteristics but it also looks great and has a huge list of added features. With the convenience of the two built in USB ports to charge any USB product including ever demanding items such as smart phones, iPhone® and iPad®, you can do away with additional adaptors for a start. Also features 8 surge protected sockets, power overload protection, and when it's not in use simply store the power cord in the bottom of base. Perfect for under the desk or behind your entertainment unit.

Specifications	
Surge protection	Metal oxide varistors
Supply voltage	230-240VAC, 10A, 2400W max
Protection mode	A-N, N-E, E-A
Max surge current	90,000A
Energy absorption (Joules)	3150J
Clamping voltage	775V
Response time	10/1000us
Noise Filter	150kHz - 100MHz up to 75dB
2 x USB Recharging ports	1A max
Dimensions	225(H) x 170(W) x 170(D)mm

Due September

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
	SAA111762 EA	MS-4023	$69.95	$62.95	$55.95

1 YEAR WARRANTY

Note: iPhone® and cable not included

8 Way Home Theatre Powerboard with Mains Filter, Telephone, Video, & TV Protection

Designed specifically for use in the lounge room or home theatre, this powerboard gives you the protection you need for your home theatre equipment. Surge protection and filtering are provided for the mains power to all your equipment, each socket is protected three ways through active, neutral and earth; not simply across active and neutral like cheaper models. Further protection is provided by the built-in circuit breaker. Not stopping there, this powerboard also has USB outputs, data protection for a network connection, satellite / cable TV video protection, and protection for the TV antenna.

Now includes 2 USB ports to power your USB devices. 1A output from each output.

- 8 surge and spike protected outputs
- Telephone and data line surge and spike protection. RJ45 sockets for data and telephone.
- 10 amp resettable overload circuit breaker
- Flame retardant enclosure with protection neon indicators
- Recessed power switch to help avoid accidental power on or off
- Two outlets spaced further apart to accomodate bulky AC adaptors
- USB charging output: 2.0A total

Specifications - Power Filter	
Surge protection	Metal oxide varistors
Supply voltage	230-240VAC
Current rating	10A Max
Protection mode	A-N, N-E, E-A
Max Surge current	52,000A
Typical capacitance	400pF
Clamping voltage (@50A)	<775V
Energy absorption	1550 Joules
Response time	< 20us

Antenna Protection:
- Filter type: gas arrestor tube

Specifications - Data Line Protection	
Filter type	Gas arrestor tube
Surge current	1200A (1kV/u sec)
Impulse discharge current	10kA (8/20u sec)
Capacitance	<5pF
Clamping voltage	600V

Leads included
1.8m TV coax plug to TV coax plug
1.8m Rj45 to RJ45
1.8m F61 plug to F61 plug
Approval No. N17817

MORE INFORMATION...
Features USB Charging sockets...

POWERTECH

Type	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
8 Way	N17817	MS-4024	$49.95	$44.90	$39.90

1 YEAR WARRANTY

Mains Power Control

POWERBOARDS (CONTINUED)

6 Way Power Outlets with Mains Filter & Telephone Line Protection

This filter features recessed mains safety sockets that are perfectly suited to plugpack adaptors. Each socket is spaced apart so that plug packs can be used in every socket if required (this is near impossible with conventional powerboards). When a standard powerboard is mounted vertically, plug packs can sometimes work themselves free over time. The recessed sockets on this board prevent that from happening and, of course, from making potentially dangerous contact due to partially exposed mains connectors.

The board also features telephone line filtering for modems/faxes, and separate LED surge and power indicators. Each mains socket is individually switched with illuminated rocker switches for quick reference, eliminating the annoyance of having to unplug an item that doesn't have it's own mains switch, such as plugpack-powered multimedia speakers, for example. Naturally, the mains filter includes overload protection as well as a circuit breaker.

Specifications	
Power rating	230-240VAC 50Hz
Current	10A (max.)
Handling	2400W
Protection mode	A-N, A-E, N-E
Surge current	6,000A (2/20u sec.)
Clamping voltage	<775V (at 50V)
Energy absorption	175J (10/1000u sec.)

TECH TIP!

BOTH UNITS feature wide spaced mains sockets so you can fit bulky AC plug packs along side each other

Specifications - Telephone Line Protection	
Filter type	Ceramic Gas Discharge tube
Surge current	1200A (1kV/u sec.) Line to Line
Impulse discharge current	10kA (8/20u sec.)
Capacitance	<5pF
Clamping voltage	600V
Phone socket	RJ-45 with reducers for RJ-12
Surge protection	Metal oxide varistors
Response time	<15 nanosecond
Differential capacitance	400pF (1kHz)
Filtration protection	EMI/RFI

MS-4022

MS-4020

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
Single Row	N18323	MS-4022	$39.95	$35.90	$31.90
Double Row	N18322	MS-4020	$39.95	$35.90	$31.90

POWERTECH

6 Way Power Outlet with Mains Filter & Telephone Line Protection

This mains filter has protection for mains and telephone products: phones, modems, answering machines, cordless telephones, faxes.

- Ideal for protecting your computer and phone line from spikes and surges.
- 6 surge and spike protected mains outlets
- Telephone / data line surge and spike protection RJ45 sockets (RJ12 reducer included)
- 10 amp resettable overload circuit breaker
- Flame retardant enclosure available in Black
- Protection LED indicator & earth connection LED indicator

Specifications - Power Filter	
Surge protection	Metal oxide varistors
Supply voltage	230-240VAC
Current rating	10A max
Protection mode	PN, NE, PE
Max surge current	30,000A
Typical capacitance	400pF
Clamping voltage	<775V(@50A)
Energy absorbtion	875 joules
Response time	<20μSec

Specifications - Telephone Data Filter	
Filter type	Gas tube arrestor
Max impulse breakdown voltage	1,000V
Max impulse discharge current	10,000A
Maximum capacitance	20pf

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
6 way	N18812	MS-4037	$29.95	$26.90	$23.70

POWERTECH

3 & 4 Way Powerboards with 2 x USB Charging Ports

NEW 2013

Sleek smooth edged powerboards with overload protection for the home or office which also feature two handy USB ports for charging or powering various USB gadgets, Smartphones, Tablets etc..

Two models to choose from:
3 Way Powerboard with USB MS-4070
4 Way Powerboard with USB MS-4072

Specifications	MS-4070	MS-4072
Power cord length	1.1m	1.1m
USB ports	5V 1A max	5V 1A max
Dimensions	280(L) x 50(W) x 28(H)mm	325(L) x 50(W) x 28(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
3 Way	MS-4070	$19.95	$17.70	$15.70
4 Way	MS-4072	$22.95	$20.35	$18.35

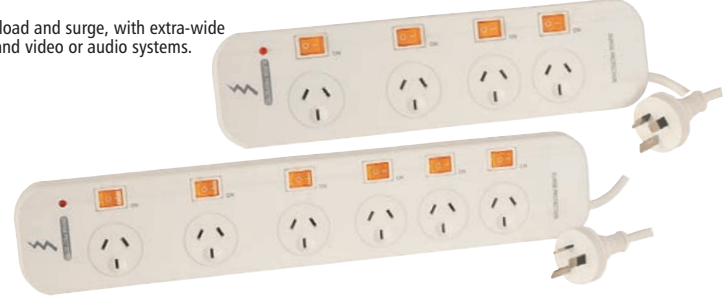
POWERTECH

4 & 6 Way Surge/Overload Protected Powerboards

Individually switched powerboards provide a high level of protection from overload and surge, with extra-wide spacing to take bulky mains plugpacks. Ideal for home theatre, computers, TV and video or audio systems.

- Extra-wide spacing to take mains plugpacks
- Individually switched
- Surge and overload protected

Two versions available:
4 Way - Cat MS-4064
6 Way - Cat MS-4066



Specifications - Power Filter	
Surge protection	Metal oxide varistors
Supply voltage	230-240VAC
Current rating	10A max
Surge Rating	375 Joule

		Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way	SGSEA090140	MS-4064	$19.95	$17.70	$16.70
6 Way	SGSEA090140	MS-4066	$24.95	$22.35	$20.95

POWERTECH

POWERBOARDS (CONTINUED)

4 Way Powerboard with Filter / Surge and Overload Protection

This powerboard offers 4 outlets, all filtered and surge protected. Guard your expensive Hi-Fi, TV, or VCR etc. against damage. Available in black or white.

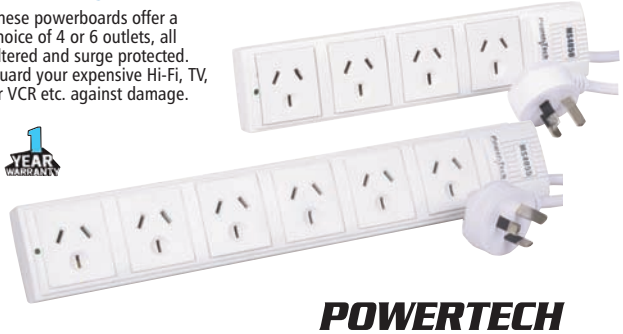
Features:
- 4 Surge and Spike protected mains outlets
- 10 amp resettable overload circuit breaker
- Power on indicator in switch
- Cable length: 1 metre
- Colour: White (MS-4050), or black (MS-4057)

Specifications	
Surge Protection	Metal oxide varistors
Supply Voltage	230-240VAC
Current Rating	10A max
Protection Mode	Active - Neutral
Max Surge Current	6000A
Typical Capacitance	430pF
Clamping Voltage	<775 @ 50A
Energy Absorption	175 joules
Approvals Number	N17298

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way White	NSW17298	MS-4050	$14.95	$13.35	$11.70
4 Way Black	NSW17298	MS-4057	$14.95	$13.35	$11.70

4 & 6 Way Powerboards with Filters/ Surge and Overload Protection

These powerboards offer a choice of 4 or 6 outlets, all filtered and surge protected. Guard your expensive Hi-Fi, TV, or VCR etc. against damage.



- Surge and spike protected mains outlets
- 10 Amp resettable overload circuit breaker
- Cable length: 1 metre
- Colour: White

Specifications	
Surge Protection	Metal Oxide Varistors
Supply Voltage	230-240VAC
Current rating	10A max
Energy Absorption	230 Joules

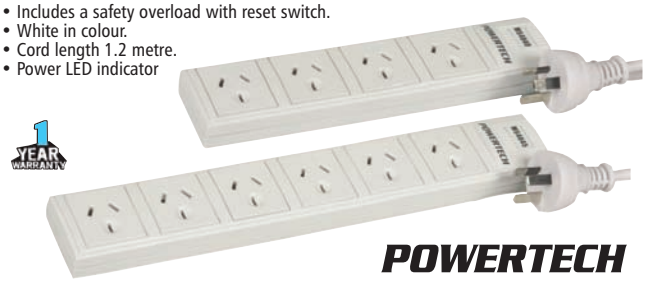
	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way	V03045	MS-4051	$9.95	$8.75	$8.25
6 Way	V03045	MS-4055	$14.95	$13.35	$12.70

RELATED PRODUCT...
See our Digital Timers on page 280.

4 & 6 Way Powerboard

These powerboards will allow 4 or 6 appliances to be plugged in at once to a single power point.

- Maximum load is 2400 watts.
- Includes a safety overload with reset switch.
- White in colour.
- Cord length 1.2 metre.
- Power LED indicator



	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
4 Way	V03474	MS-4040	$5.95	$5.25	$4.95
6 Way	V03474	MS-4045	$7.95	$6.95	$6.75

MAINS DOUBLE ADAPTORS

Mains Double Adaptors

- 240V Double Adaptors
- Standard, right & left types

	Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
Standard	N14532	PP-4032	$4.95	$4.45	$3.90
Right Hand	N19006	PP-4035	$4.95	$4.45	$3.90
Left Hand	N19006	PP-4036	$4.95	$4.45	$3.90

Double Adaptor with Night Light

Leave a night light on for the kids without wasting a power point. When the lights go out, the light comes on so you can find your way to the little room or the kitchen for a midnight snack and it only uses a tiny 0.2W so it won't send the power bill through the roof. It can be left in place and you still have use of the power outlet.

- Light-sensitive
- Size: 88(H) x 44(W) x 33(D)mm

Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
SAA101507EA	PP-4039	$9.95	$8.75	$7.75

MAINS EXTENSION LEADS

Mains Extension Leads - White

These leads have the new "safe socket", which has a flange around it, so kids can't slide a knife in and hurt themselves.

- Off white colour.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2 metres	PS-4122	$5.95	$5.25	$4.75
3 metres	PS-4125	$8.95	$7.95	$6.95
5 metres	PS-4130	$9.95	$8.75	$7.75
10 metres	PS-4134	$14.95	$13.35	$11.70

Mains Extension Leads - Black

Perfect for stage, lighting, DJ or other applications where the inconspicuousness of a black extension lead is required.

- Rated to 10A max.

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 metres	PS-4152	$5.95	$5.25	$4.75
5 metres	PS-4155	$9.95	$8.75	$7.75
10 metres	PS-4157	$14.95	$13.35	$11.70

CARAVAN POWER

Heavy Duty 15A Extension Leads

Proper heavy duty mains extensions leads with 15A plugs and sockets, and a thick orange flexible cord. The 15A socket end also features an internal LED to indicate that power is present. Perfect for caravans and motorhomes.

	Cat.	Qty 1+	Qty 4+	Qty 10+
10m	PS-4182	$19.95	$17.70	$15.70
15m	PS-4184	$29.95	$26.90	$23.70
20m	PS-4186	$39.95	$35.90	$31.90

15A to 10A Mains Power Adaptor with RCD For Caravans

Convert your 15A caravan power lead to fit a 10A power outlet. Ideal if you've parked your caravan for the night at a motel or other property that does not have a 15A power outlet. Features a 10A circuit breaker/RCD in case you accidentally overload the device.

- Voltage: 240VAC, 50Hz
- Max load: 2400W 10A
- Rated residual current: 30mA
- RCD type: AC & DC pulse sensitivity
- Dimensions: 180(H) x 135(D) x 124(W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-4044	$79.95	$71.95	$63.95

Mains Travel Adaptors

Variable Speed PCB Drill Press

Makers Name: Craig Turner
Location: Queensland

This press features a work light, and a high speed motor and gear box assembly from a salvaged battery drill which is controllable from approximately 30 rpm to a rough guestimate of approximately 700 rpm using a 20A speed controller kit. To power the drill press, I designed a high current, multi-voltage power supply. I achieved this by relocating the output wires into the box and adding a switch to turn the power supply on.

For more details scan the QR code or go to www.jaycar.com.au/makers

POWER POINT TESTER

Power Point & Leakage Tester

Test your power points using this versatile tester. It checks most types of power points within 110V to 240V range for correct wiring and trip levels for earth leakage circuit breakers.

The combination of lights on the front panel identifies the following problems:

- No earth connected
- No neutral connected
- No active connected
- Active and neutral reversed
- Active and earth reversed

RELATED PRODUCT...
For more other Voltage Testers see page 27

RELATED PRODUCT...
See full range of Portable Travel Chargers 393

To determine ELCB trip levels simply slide the switch from 10mA up toward 100mA. All ELCBs should trip before 100mA. Switch positions are 10mA, 15mA, 30mA and 100mA.

Cat.	Qty 1+	Qty 3+	Qty 6+
QP-2000	$19.95	$17.70	$15.70

MAINS TRAVEL ADAPTORS

Universal Travel Adaptor With USB Charger, Overseas to Australia

NEW 2013

Suitable for plugging overseas appliances into Australia/New Zealand power sockets. Also provides a USB charging port with 2.1A current to charge your Tablet or Smartphone, eliminating the need to carry multiple power adaptors.

Note: Does not convert voltage.

- Suitable for 240V 50Hz mains.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4040	$19.95	$17.70	$15.70

TRAVEL ADAPTORS

Note: These adaptors do not convert voltage. Item being connected must be suitable for 220-240VAC

Earthed Adaptors for use in Australia & NZ with Surge Protection

Accepts overseas 2 and 3 pin plugs and adapts to Australia and New Zealand. For use with electrical appliances from Europe, USA, and some Asian and South American countries. Surge protected to provide additional safety.

- Electricity Authority approved (Approval No. NSW21047)

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4018	$9.95	$8.75	$7.75

Accepts overseas 2 and 3 pin plugs and adapts to Australia and New Zealand plug configuration. This unit includes a surge protector to keep your device safe from voltage spikes. For electrical appliances from many countries including USA, Asia, Japan etc.

- Does not convert voltage.
- Electricity Authority Approved. (Approval No. NSW21046)

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4019	$9.95	$8.75	$7.75

RELATED PRODUCT...
For Stepdown Transformers see page 300

Mains Travel Adaptors With USB Charging Port

Suitable for taking your Australia/New Zealand appliances on your overseas travels. Each provides a USB charging port with 2.1A current to charge your Tablet or Smartphone, eliminating the need to carry multiple power adaptors.

4 versions available to suit most countries.
- NOTE: Does not convert voltage.

Australia to Europe

NEW 2013

Suitable for taking your Australia/New Zealand appliances overseas to plug into Europlug power sockets.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4042	$17.95	$15.95	$14.35

Australia to UK/Hong Kong

NEW 2013

Suitable for taking your Australia/New Zealand appliances overseas to plug into UK/Hong Kong power sockets.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4044	$17.95	$15.95	$14.35

Australia 3pin to USA

NEW 2013

Suitable for taking your Australia/New Zealand appliances overseas to plug into 3pin earthed USA power sockets.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4046	$17.95	$15.95	$14.35

Australia 2pin to Japan

NEW 2013

Suitable for taking your 2pin Australia/New Zealand appliances overseas to plug into 2pin un-earthed Japan/USA power sockets.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4048	$17.95	$15.95	$14.35

Mains Adaptor Unearthed for USA or Japan

This travel adaptor is designed for use on 2 pin Australian appliances while travelling in Japan or the USA.

Only suitable for items without an earth pin such as most mobile phone chargers and laptop power supplies.

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4026	$9.95	$8.75	$7.75

Earthed Mains Adaptor for Use in Australia and New Zealand

This universal adaptor converts 3 pin plugs from USA or UK to match 3 pin outlets in Australian and New Zealand. Also compatible with the unearthed 2 pin Europlug common throughout Europe. As the adaptor

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4027	$9.95	$8.75	$7.75

For use by visitors from all over the world (except South Africa & India).

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4020	$12.95	$11.35	$10.35

Mains Adaptors for Australia & NZ Going Overseas

They DO NOT convert voltage, but allow you to plug into various types of wall outlets around the world.

USA

Approval Number: N19890

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4025	$9.95	$8.75	$7.75

EUROPE

Approval Number: N19887

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4023	$9.95	$8.75	$7.75

GREAT BRITAIN

Approval Number: N19893

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4024	$9.95	$8.75	$7.75

POWER LEADS

2 Pin Power Lead - 1.8m

SOANAR

Black 240V 2 pin power lead as used in many appliances, eg: portable Hi-Fi, shavers etc.

- Universal round IEC C7 connector.
- Not earthed
- SAA Approved

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4115	$5.95	$5.25	$4.75
	Cat.	Qty 1+	Qty 4+	Qty 10+
5.0m	PS-4117	$11.95	$10.70	$9.50

Retractable 2 Pin Power Lead - 1m

Black 240V retractable 2 pin power lead as used in many appliances, eg: portable hi fi, shavers etc. Perfect for travellers or the laptop bag.

- 1m long & SAA approved
- IEC C7 connector

Note: Must be used fully extended

Length	Cat.	Qty 1+	Qty 10+	Qty 20+
1.0m	PS-4119	$9.95	$8.75	$7.75

CLOVER LEAF

3 pin clover type to 240V plug

- 1.8 metres long.
- Earthed
- SAA Approved

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4120	$6.95	$6.25	$5.50

CONNECTION BOXES

Dri-Box Weatherproof Power Connections Boxes

NEW 2013

Protects mains connections from rain, dust, or grime. Just insert a mains plug and socket into the box, connect them, then run the cable out of the openings at each end. The box lid features a rubber gasket and each opening uses a rubbery-jelly material to safely seal the cable from exposure. Ideal for protecting Christmas/other outdoor lighting cables, water features, outdoor speaker cables, outdoor heating equipment, and many other outdoor applications.

Our large model is capable of containing most 4 way powerboards for more demanding outdoor mains requirements. It features 5 openings, one for the mains coming from the powerboard and 4 to be used as outputs from the powerboard.

Two models available:

SMALL - HB-6175
- IP55 rated
- Dimensions: 200(L) x 90(W) x 94(H)mm

LARGE - HB-6177
- IP55 rated
- Dimensions: 285(L) x 150(W) x 110(H)mm

Size	Dimensions	Cat.	Qty 1+	Qty 4+	Qty 10+
Small	200(L) x 90(W) x 94(H)mm	HB-6175	$17.95	$15.95	$14.35
Large	285(L) x 150(W) x 110(H)mm	HB-6177	$24.95	$22.35	$19.70

IEC POWERLEADS

Straight IEC female to 240V plug

- 1.8 metres long.
- Earthed
- SAA Approved

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4106	$8.95	$7.95	$6.95

Straight IEC Female to 240V Plug - 5m

Extra long mains lead (5 metres) to allow more options with equipment placement or for eliminating an extension lead.

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
5.0m	PS-4105	$13.95	$12.35	$10.95

Right angle IEC Female to 240V Plug.

- 1.8 metres long
- Earthed
- SAA Approved

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4107	$9.95	$8.75	$7.75

15A IEC C19 Female to 240V Plug

- 15A
- SAA Approved

NEW 2013

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4124	$12.95	$11.35	$10.35

IEC Male to 3 Pin (GPO) Socket

Ideal for connecting a standard powerboard to a UPS etc.
- SAA approved
- 150mm long

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
150mm	PS-4100	$9.95	$8.75	$7.75

IEC female to IEC male

- 1.8 metres long.
- Earthed
- SAA Approved

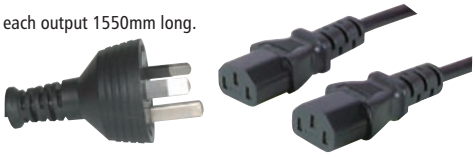
SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	PS-4108	$8.95	$7.95	$6.95

240V male to 2 X IEC female

TECH TIP!
OEM'S - We can supply all these in bulk at very competitive prices.

- Length 2.0 metres.
- Earthed
- SAA Approved
- 540mm before join, each output 1550mm long.



SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	PS-4102	$16.95	$14.95	$13.35

IEC Male to 2 x IEC Female

Generally used for splitting "switched" outputs - like the one on the back of many computers that is used for powering the monitor. Now you can use this facility to turn on another device - like a printer, desk lamp...anything with an IEC male.

- Length 2.0 metres.
- SAA Approved

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	PS-4104	$17.95	$15.95	$14.35

Mains Power Hardware

FOREIGN PLUG LEADS

IEC320 Power Mains Leads

To suit 3 different regions/countries. We have had so many enquiries for these products that we now stock the following range which are black in colour and are all earthed.

USA

3 x 18AWG (41 x 34 strands) cable rated at 250/300V @ 10 amps.

- Temperature rated at 60° C and approved to UL817, CSA C.22.3 N.42, JIS C3306, C8303 and NEMA 5-15.
- 2 metres long

SOANAR

UK

3 x 0.75mm² (24 x 0.21 strands) cable rated at 500V @ 6 amps 250V @ 10 amps.

- Temperature rated at 70°C and approved to UK spec BS 1363-84
- 2 metres long

SOANAR

EUROPE/GERMANY

3 x 0.75mm ² (24x0.21 strands) cable rated at 500V @ 6 amps 250V @ 10 amps.

- Temperature rated at 70°C and approved to CEE (7) & VDE standards.
- 2 metres long
- N15464

SOANAR

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	PS-4140	$15.95	$14.35	$12.70
2.0m	PS-4142	$15.95	$14.35	$12.70
2.0m	PS-4144	$15.95	$14.35	$12.70

IEC PLUG LEADS

IEC Locking Leads

Suitable for use with the mating panel-mount sockets. All are 2 metres long and lock into the socket until the locking tab is disengaged.

IEC LOCKING MAINS LEAD 2M

Suits either PP-4174 or PP-4178

- 2.0 metres long
- SAA approved

Cat. PS-4170

16A IEC LOCKING MAINS LEAD

Suits PP-4182

- 2.0 metres long
- SAA approved

Cat. PS-4180

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	PS-4170	$16.95	$14.95	$13.35
2.0m	PS-4180	$22.95	$20.35	$18.35

IEC CONNECTORS

IEC Locking Sockets

This range of IEC sockets is ideal for heavy-duty environments, such as industrial applications, server rooms, PA or music applications. The plugs lock into the sockets and can only be removed by disengaging the locking tab, so you don't lose the juice to your equipment if someone bumps or knocks it. All are 3-pin with earth connection.

LOCKING UNFUSED MALE IEC PANEL-MOUNT

Screw mounting, requires a mounting hole 27 x 20mm. Suits panels up to 6mm thick. Solder tabs, 10A rated.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4174	$4.95	$4.45	$3.90

LOCKING FUSED MALE IEC PANEL-MOUNT

Snap-in, requires a mounting hole 32 x 28mm. Suits panels up to 1.6mm thick. Solder tabs, 10A rated. Accepts standard M205 fuses.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4178	$6.95	$6.25	$5.50

LOCKING MALE 16A IEC PANEL-MOUNT

Screw mounting, requires a mounting hole 32 x 24mm. Suits panels up to 6mm thick. Solder tabs, 16A rated.

Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4182	$6.95	$6.25	$5.50

LOCKING FEMALE IEC PANEL-MOUNT SOCKET

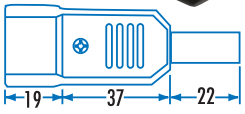
Snap-in female socket for slave power applications, such as powering a computer monitor from a tower. Mounting hole 32 x 25mm, suits panels up to 1.6mm thick. Connection is by solder tabs, 10A rated.

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-4176	$4.95	$4.45	$3.90

Line Male

Widely used in personal computers.

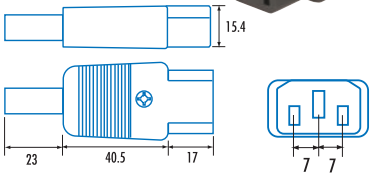
- Safety approved number NSW21518
- EC320 C14
- 240V



Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4007	$6.95	$6.25	$5.50

Line Female

- Safety approved number NSW21510
- EC320 C13 • 240V



Cat.	Qty 1+	Qty 4+	Qty 10+
PS-4006	$5.95	$5.25	$4.75

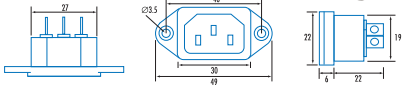
High Temperature IEC320 C15 Socket

Intended for service in higher temperature enviroments up to 120°C at a current rating of 10 amps. Incorporates a keyway which prevents being used with standard temperature IEC320 C14 connections.

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-4013	$9.95	$8.75	$7.75

Male Chassis

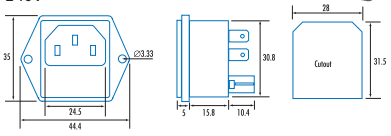
- Size 50(W) x 22(H)mm
- Mounting holes 40mm apart.
- IEC320 • 240V



Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4005	$3.95	$3.45	$3.15

Male Chassis with Fuseholder

- Size 35(H) x 44(W) mounting holes 36mm apart.
- Cutout 31.5(H) x 28(W)mm.
- M205 fuse. • IEC320
- 240V

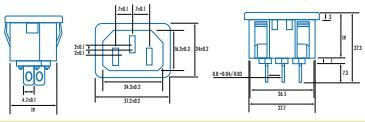


Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4004	$6.95	$6.25	$5.50

Snap-In Mains Socket

Panel-mounting IEC mains socket. Unfused and non-switched.

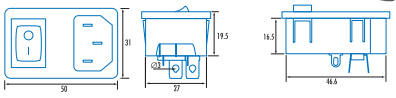
- Panel thickness: 0.8 - 3mm
- Cutout size: 27 x 19mm
- Rated for 250VAC at 10A
- 12 months warranty.



Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4009	$4.95	$4.45	$3.90

Chassis Male with Switch & Fuse

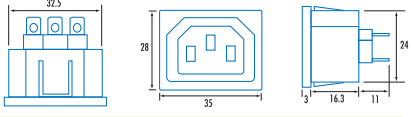
- DPST switch.
- M205 size fuseholder
- Max 10A, 250V
- IEC320



Cat.	Qty 1+	Qty 4+	Qty 10+
PP-4003	$7.95	$6.95	$6.25

Chassis Socket Female

- Simply snaps in.
- Rated at 250V 10A.
- IEC320



Cat.	Qty 1+	Qty 4+	Qty 10+
PS-4002	$4.95	$4.45	$3.90

Rubber Covers

Slip over the back of the above IEC connectors to cover the mains terminals. Available in 2 sizes.

SMALL:
Suits Cat PP-4005 & IEC filters

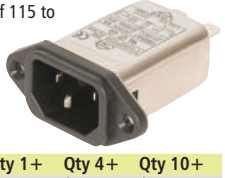
LARGE:
Suits Cat PS-4002 & PP-4004

	Cat.	Qty 1+	Qty 4+	Qty 10+
Small	PM-4015	$2.75	$2.45	$2.30
Large	PM-4016	$2.95	$2.60	$2.45

EMI Power Line Filter - 6 Amp

These Industry standard design RF/EMI filters are designed to reduce line - to - ground (common mode) interference.

They accept a standard IEC power line convertor and are panel mounted. They meet (or exceed) international standard leakage requirements and are rated for mains voltages of 115 to 250V, 50, 60Hz. Safety & construction are in compliance with UL, CSA, VDE etc.



- Cutout 27 x 21mm
- IEC320

Cat.	Qty 1+	Qty 4+	Qty 10+
MS-4003	$9.95	$8.75	$7.75

MAINS HARDWARE

Mains Power Switches & GPOs

Tradies pay attention!! Finally, there is a discount alternative to the big brand names! Despite being made in China, this range of general purpose outlets (GPOs) & light switches are all made with the highest quality materials and feature an attractive finish you would be happy to show inside your home. The switches are the same hardwearing long service life type you'll find in the big brand names, and best of all - the price is lower. The savings really start to add up when wiring up the garage or a whole house. They are all fully approved to Australia/New Zealand safety standards, so you don't have to take only our word to ensure quality.

MAINS LIGHT SWITCHES

Standard GPO size light switch.
240V 10A rated.

- Safety Approval No. V07149

	Approval	Cat	Qty 1+	Qty 4+	Qty 10+
Single Switch	V07149	PS-4055	$4.95	$4.45	$3.90
Double Switch	V07149	PS-4057	$5.95	$5.25	$4.75

GENERAL PURPOSE OUTLETS - GPOs

Tradies pay attention!! Finally, there is a discount alternative to the big brand names!
Despite being made in China, this range of general purpose outlets (GPOs) are all made with the highest quality materials and feature an attractive finish you would be happy to show inside your home. The switches are the same hard wearing long service life type you'll find in the big brand names and best of all - the price is lower. The savings really start to add up when wiring up the garage or a whole house. They are all fully approved to Australia/New Zealand safety standards, so you don't have to take only our word to ensure quality.

- Safety Approval No.: V07296
- Packaged in a handy trade-style polybag

Three different types available:
PS-4040 Single 240V GPO
PS-4060 Double 240V GPO
PS-4046 Double 240V GPO with Extra Switch

Note: the screws included with these have a slightly different pitch to the standard 3.5 x 0.8mm, but should still fit plasterboard mounting plates etc.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Single GPO	PS-4040	$4.95	$4.45	$3.90
Double GPO	PS-4060	$6.95	$6.25	$5.50
Double GPO with extra switch	PS-4046	$7.95	$6.95	$6.25

Power Lead 3 Pin

- Latest models with insulated pins

3 Pin 240V AC plug with 2 metres of 3 core cable to bare ends with lug on earth. 7.5A.

Cat.	Qty 1+	Qty 4+	Qty 10+
PS-4110	$5.95	$5.25	$4.75

240V Line Plug 10A

- Safety clear plastic cover.
- Latest models with insulated pins

Cat.	Qty 1+	Qty 10+	Qty 50+
PP-4000	$3.95	$3.45	$3.15

Side Entry Line Plug 240V

- Latest models with insulated pins

Cat.	Qty 1+	Qty 10+	Qty 50+
PP-4001	$4.95	$4.45	$3.90

240V Mains Line Socket

- Safety type.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4008	$7.95	$6.95	$6.25

240V Cordline Switch

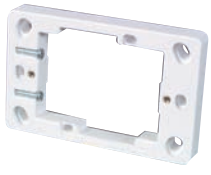
Inline cord switch for 2 and 3 core cable up to 10 amps. Switches both neutral and active wires.

- Suitable for AC mains only.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4075	$17.95	$15.95	$14.35

Surface Mounting Blocks

Standard mounting blocks for powerpoints and wall switches, or any other standard wallplates.



Depth	Cat.	Qty 1+	Qty 10+	Qty 50+
16mm	PS-4063	$4.95	$4.45	$3.90
30mm	PS-4062	$5.95	$5.25	$4.75

Plaster Board Bracket

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3033	$2.95	$2.60	$2.30

Flat GPO Mount Bracket

Mounting bracket for standard wall plate to be mounted on plasterboard.

- Install before plasterboard.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4077	$1.95	$1.75	$1.65

Mains Panel Socket

Flush mounting 3 pin mains socket. Ideal for many situations where the socket cannot protrude far from its mounting bracket.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4094	$7.95	$6.95	$6.25

Mains Surface Socket

3 pin mains socket, where there is plenty of external room. No need to cut large hole in panel - only for wiring.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4092	$7.95	$6.95	$6.25

Mains Panel Sockets with Cover

Mains panel socket with spring loaded cover
- Approval no: Q090091

10A 250VAC
- Dimensions: 50(H) x 50(W) x 27.6(D)mm

PS-4095

15A 250VAC
- Dimensions 62(H) x 50(W) x 27.7(D)mm

PS-4097

	Cat.	Qty 1+	Qty 10+	Qty 50+
10A	PS-4095	$9.95	$8.75	$7.75
15A	PS-4097	$9.95	$8.75	$7.75

240V 32A "BP" Mains Connectors

Available as a pack of 10 standard single screw connectors and 2 double screw. Ideal for safe, reliable earth connections.

"BP" style connectors, also known as acorns. (Double screw are for earth).

- 8 single and 2 double per pack

	Cat.	Qty 1+	Qty 10+	Qty 50+
Pkt 10	HM-3192	$9.95	$8.75	$7.75

Junction Box

Size 70 x 70 x 37(D)mm.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4066	$6.95	$6.25	$5.75

BUSBARS

Machined Brass Busbar - 8 Way

DO NOT USE FOR 240V

These are usually used to give an electrically common point for earth wiring but are also useful for low voltage tie points, especially on boats or RV's, Caravans etc., 6 holes accept up to a 4.5mm wire bundle and the outer 2 a 6.0 bundle. The Busbar has insulated standoffs at each end which can be removed so that the assembly can be screwed directly to a chassis. The standoffs have a conservative insulation rating of 1000V.

- All screws M4.0 Brass bar 9.0 x 6.0
- Length overall including standoffs: 100mm, without standoffs: 65mm.

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-2003	$6.95	$6.25	$5.50

150A Insulated Bus Bar

NEW 2013

This quality bus bar features a raised insulating base that isolates the bus bar from earthed or other live chassis.
It features 2 x 5mm bolted terminals for connecting main power feeds, and 10 screw terminals for connecting lower current feeds of up to 10A each. Total current capacity is 150A, and is suitable for 12-32V wiring.
2 countersunk screw holes for 5mm metric fasteners.

- Not suitable for 240V active circuit
- Dimensions: 145(L) x 30(W) x 40(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
SZ-2012	$14.95	$13.35	$11.70

Small Battery Chargers

BATTERY CHARGER COMPARISON CHART

	MB-3564	NEW MB-3514	MB-3549	MB-3561	MB-3568	MB-3551	MB-3545	MB-3632	MB-3638	MB-3639
12VDC			*	*		*		*		*
240VAC	*	*	*	*	*	*	*		*	*
Alkaline					*					
Ni-MH	*	*	*	*	*	*	*	*	*	*
Ni-Cd	*	*	*	*	*	*	*	*	*	*
Li-ion								*	*	*
Li-Po								*	*	
AAA	*	*	*	*	*	*	*			*
AA	*	*	*	*	*	*	*			*
C		*					*			
D		*					*			
9V		*				*	*			*
USB OUTLETS									*	1
FAST CHARGE	*			*			*			
DISCHARGES						*				
PAGE NUMBER	288	288	288	288	288	288	289	289	289	289

AAA & AA CHARGERS

Fast Ni-MH/Ni-CD Battery Charger

Suitable for charging 1 to 4 AA or AAA Ni-MH/Ni-Cd rechargeable batteries. Features over-current, over-heat and over-voltage protection with the ability to detect non-rechargeable, short-circuited or defective batteries. Plugs directly into a mains power point.

- 600mA charging current
- Plugs directly into 240VAC mains outlet
- 4 LED indication
- Dimensions: 100(L) x 64(W) x 25(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3564	$14.95	$13.35	$11.70

Universal Ni-Cd/Ni-MH Battery Charger With Cut-off

NEW 2013

An affordable universal battery charger that will re-charge Ni-MH/Ni-Cd batteries in AA, AAA, C, D as well as 9V. It will also ensure long battery life by cutting-off the voltage when they are fully charged. The unit can charge in various configurations, for example 2 x 9V and 4 x AA batteries simultaneously.

- Recharges: AAA, AA, C , D and 9V batteries
- Cut-off function
- Accepts various combinations of batteries
- Dimensions: 199(L) x 100(W) x 46(H)mm

Note: Batteries not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3514	$24.95	$22.35	$19.70

2 Hour Fast Charger For AA/AAA Ni-MH Batteries

Recharge up to four AA or AAA Ni-MH batteries. This handy charger, which utilises Delta V voltage detection, charges batteries to their optimal level to ensure long life. Charge state can be monitored on the integrated electric blue LCD. Charge on the go with the car cigarette lighter cord included as well as the mains plugpack.

- Easy to read and backlit LCD
- Includes bad cell detection
- Charge at the home, office or on the road
- Delta V detection and cut-off
- 1150mA charging current for AA batteries
- 600mA charging current for AAA batteries
- Supplied with mains plugpack and car charging cable
- Dimensions: 105(L) x 68W) x 30(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3549	$29.95	$26.90	$23.70

RELATED PRODUCT...

Learn more about using and charging Ni-Cd and Ni-MH batteries. Read our primers at www.jaycar.com.au/primers

60 Minute Fast Charger with USB Port

Recharge up to 4 x AA or AAA Ni-MH batteries fast with this handy charger. Using Delta -V voltage detection, 4 individual channels and an auto cut-off safety timer, the batteries are charged to their optimal levels to ensure longest life with added protection. Also features smart LED indicators that show the charging status for each channel. Loaded with a USB port capable of 2.1A, great for charging gizmos such as digital cameras, GPS, Smartphones, iPhones® or power hungry iPads® and tablets. Supplied with a 240VAC adaptor and a 12VDC adaptor.

- Delta -V controlled
- Temperature sensor
- Suitable for 1-4 AA or AAA batteries
- Defective, non rechargeable battery detection
- Charge current 2000mA for AA, 850mA for AAA
- Dimensions: 114(L) x 75(W) x 30(D)mm

1 YEAR WARRANTY

Note: Batteries not included

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3561	$39.95	$35.90	$31.90

Alkaline/Ni-Cd/Ni-MH Battery Charger

Contrary to popular belief, it is actually possible recharge alkaline batteries as long as they aren't completely dead.

Now you can recharge AA or AAA alkaline batteries 10-20 times depending on their quality, age and condition as well as recharge Ni-Cd or Ni-MH batteries. Recharging 4 x AA top brand name batteries just 10 times will more than pay for the cost of this charger, you will certainly get your money's worth! LEDs indicate charge status and the on-board electronics prevent overheating or overcharging.

- Charges up to 4 x AA or AAA alkaline, Ni-Cd or Ni-MH batteries
- Microprocessor controlled to prevent overcharging
- Individual charge circuits for each cell
- Maximum output current: 350mA (x4)
- Safety timer cutout
- Mains powered
- Dimensions: 71(W) x 118(H) x 30(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3568	$49.95	$44.90	$39.90

12VDC & 240VAC Smart Battery Charger Ni-Cd & Ni-MH

This microprocessor controlled charger will accept a combination up to 10 x AA or AAA cells and 2 x 9 volt batteries. The integrated discharger can fully flatten the battery before charging to help minimise memory effects. Uses Delta V sensing to achieve the maximum charge. A maximum charging timer protects against overcharging & individual LEDs show battery status.

- Charges up to 10 AA or AAA batteries
- Also charges 9 volt batteries
- Mains power adaptor supplied
- Dimensions: 220(W) x 40(H) x 115(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
MB-3551	$49.95	$44.90	$39.90

AAA, AA, C, D, 9V CHARGERS (CONTINUED)

240VAC Universal Battery Charger with Tester & Discharger - Ni-Cd / Ni-MH

This is an economical unit that can now charge Ni-MH batteries as well as Ni-Cd batteries (Yes, even 9V Ni-MH). It has a discharge function for proper Ni-Cd battery cycling & battery tester for 1.2 & 1.5V batteries.

- Recharges AAA, AA, C, D and 9V batteries
- LED indicator on each charging section
- Recharges batteries in singles or in groups
- Includes battery tester for 1.2V to 1.5V cells
- Accepts various combinations of batteries
- Operates from 240V mains socket
- Energy Authority approved
- 200(W) x 50(H) x 95(D)mm
- Will not discharge 9V batteries

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3505	$24.95	$22.35	$19.70

12VDC & 240VAC Battery Charger with LCD

Recharge up to 4 x AA, AAA, C, D and 2 x 9V Ni-Cd or Ni-MH batteries together for a total of 6 batteries. Using Delta V voltage detection and cut-off, batteries are never overcharged and each managed fully through the charging process with the LCD keeping you informed during the process. Powerful enough to get modern day high capacity Ni-MH batteries charged quick enough and the ability to charge most battery types make this a charger handy for anyone with a lot of rechargeable batteries.
Sleek modern design.

- Easy to read backlit LCD (4 main channels shown)
- LED charging indicator for all 6 batteries
- Charge at the home, office or on the road
- Delta V detection and cut-off
- 4 charging channels (max 6 batteries charging simultaneously)
- Discharge function for Ni-Cd batteries
- 1000mA charging current for AA, C & D batteries & 500mA for AAA batteries
- 13mA charging current for 9V
- Supplied with mains plug pack only, for in-car operation use PP-1996 power lead

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3545	$59.95	$53.95	$47.90

Universal Programmable Balanced Battery Charger

The last word in battery chargers. Particularly suited to radio control hobbies, it charges, discharges and balances Li-Ion, Li-Po, Ni-Cd, Ni-MH and lead-acid batteries. Li-Po batteries are balance-charged so there's no risk of damage or explosion from incorrect charging. The charging cycle is programmable and the whole process, or the charging of each individual cell can be monitored on the LCD screen. It can be powered with a mains plugpack or directly from a 12V battery or any other DC source from 10 - 18 volts. You'll need a fairly beefy mains supply capable of supplying about 5 amps. A variety of adaptors are included - glow plug, alligator clip, 2 and 3 pin battery packs and it also features balance charge connectors on the main housing.

Charging capacity:
- Up to 15 Ni-Cd or Ni-MH cells
- 2, 3, 4, 5 or 6 cell Li-Po packs
- 2 - 20V lead-acid
- Charge current: 0.1-5.0A
- Discharge current: 0.1-1.0A
- Current drain for balancing Li-Po: 300mAh/cell
- Microprocessor controlled
- Delta V charging detection
- 2, 3, 4, 5 and 6 cell balanced charging outputs
- Recommended mains power supply Cat. MP-3243
- Dimensions: 132(L) x 82(W) x 28(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3632	$79.95	$71.95	$63.95

Universal Li-ion Cylinder Battery Charger with USB

Can accommodate 1 or 2 AA Ni-Cd/Ni-MH batteries or a variety of cylinder shaped Li-ion/Li-Po batteries. It achieves this with an adjustable battery contact. There is also a handy USB port that outputs 2.1A so you can charge your iPad® and Smartphones with ease. Compact size for easy transportation.

Specifications	
Ni-Cd/Ni-MH charging	1.4V 1000mA
Li-Polymer/Li-ion charging	3.7V 1000mA
Suitable for	18650, 14500, 18500, 17670, 17500, 16650, 22650
Dimensions	110(L) x 48(W) x 27(D)mm

Note: Batteries not included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3638	$24.95	$22.35	$19.70

RECHARGABLE Li-ION BATTERIES & CHARGERS

Universal Li-ion/Ni-Cd/Ni-MH Battery Charger

This cleverly designed charger to charge various Li-ion battery packs, as well as AA, AAA or 9V Ni-MH and Ni-Cd rechargeable batteries. Housed with a spring loaded cover for clamping down batteries, two Delta-V controlled single cell channel and two adjustable contact pins which are polarity sensing for that added convenience. A USB port on the side accommodates the charging needs for your iPhone®, Smart phone or any USB power device. Topped off with an LCD for displaying the battery type, voltage and charge status. Perfect for digital camera, cordless phone and MP3 player batteries. The charger is supplied with both mains and car adaptors.

- Suitable for: 1 x 3.6V or 7.2V Li-ion batteries packs
  1-2 x AA/AAA Ni-MH or Ni-Cd batteries
  1 x 9V Ni-MH
- USB output: 5VDC, 500mA
- Dimensions: 120(L) x 62(W) x 35(H)mm

Note: iPhone®, charging cable and batteries not included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3639	$39.95	$35.90	$31.90

Lithium Ion CR123A Battery Charger

CR123A batteries are commonly used in some LED torches and many cameras but the replacements are expensive. Now there's a rechargeable option with this lithium-ion CR123A battery & matching charger. Normally, Li-ION batteries have a nominal voltage of 3.7V, which being higher than a normal CR123 battery can damage the sensitive circuitry of LED torches and cameras - but this battery is different! The battery features smart circuitry inside that drops the voltage to 3.0V under load, making it perfectly safe to use with sensitive electronics that normally use a 3.0V CR123 battery. The intelligent design will fully recharge the included battery in about 3 hours and shows an LED charge status indicator.

- Automatic charge control
- Short circuit & over voltage protection
- Supplied with mains plugpack and car charging cable
- Smart battery technology keeps nominal voltage to 3.0V

Replacement CR123A 650mAh battery
Cat. SB-2411 sold separately

SB-2411

NOTE: BATTERY INCLUDED

Specifications	
Battery voltage	3VDC
Charge time	3 hours
Charger input	12VDC
Dimensions	90(L) x 40(W) x 25(H)mm

MB-3581

	Cat.	Qty 1+	Qty 2+	Qty 4+
CR123A Charger Only	MB-3581	$29.95	$26.90	$23.70
	Cat.	Qty 1+	Qty 10+	Qty 20+
CR123A Battery	SB-2411	$13.95	$12.35	$10.95

Universal Charger for Cordless Power Tools (4.8-24V)

Have a cordless power tool and can't find the charger? If it has a Ni-MH or Ni-Cd battery then this charger will solve your problem. It features intelligent non-polarity operation, which automatically detects the polarity and voltage of your battery and charges it accordingly. Just connect the strong magnetic or alligator clip connectors to your battery and this smart charger will do the rest. It incorporates two status LEDs, one indicating that the battery is charging and the other indicates once it is full.

Includes:
- Power adaptor: 100-240VAC to 12VDC 3.0A - 1.5m long cable
- Cigarette plug (for in car use) - 1.5m long cable
- Alligator battery connecter lead - 270mm long
- Magnetic battery connecter lead - 290mm long

Note: Battery not included

Specifications	
Input Voltage	100-240VAC (power adaptor) or 12VDC (cigarette plug)
Battery Voltage	4.8 / 7.2 / 9.6Volts (@ 1.7A), 12 / 14.4 / 18 Volts (@1.35A), 19.2 / 24 Volts (@ 1.0A)
Charging time	1-3 Hours - depends on battery capacity
Charger base unit	197(L) x 74(W) x 39(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3631	$79.95	$71.95	$63.95

Rechargeable Batteries

NICKEL METAL HYDRIDE RECHARGEABLE BATTERIES

Nickel Metal Hydride (Ni-MH) batteries offer superior features to nickel cadmium (Ni-Cd) rechargeable batteries. These features include:

- No memory effect
- Higher current capacities
- High drain performance

*Supplied in Blister Packs

Size	Current Capacity mAh	V	Per	Charging Rate Slow 15 Hours	Charging Rate Standard 5 Hours	Charging Rate Fast 1.5 Hours	Terminal Type	Cat. No.	Qty 1+	Qty 8+	Qty 15+
AAA	900	1.2	EA	90	270	900	Nipple	SB-1723	$2.95	$2.60	$2.30
AAA	900	1.2	EA	90	270	900	Solder tabs	SB-1724	$3.95	$3.45	$3.15
AA	2000	1.2	EA	200	650	2000	Nipple	SB-1706	$4.25	$3.75	$3.30
AA	2000	1.2	EA	200	650	2000	Solder tabs	SB-1708	$4.45	$3.95	$3.45
AA	2400	1.2	EA	240	750	2400	Solder tabs	SB-1728	$4.95	$4.45	$3.90
AA	2500	1.2	EA	260	800	2500	Nipple	SB-1744	$5.95	$5.25	$4.75
AAA	900	1.2	Pkt 4*	90	270	900	Nipple	SB-1739	$10.95	$9.75	$8.75
AA	2000	1.2	Pkt 4*	200	650	2000	Nipple	SB-1737	$14.95	$13.35	$11.70
AA	2500	1.2	Pkt 4*	260	800	2500	Nipple	SB-1738	$16.95	$14.95	$13.35
Size	**Current Capacity mAh**	**V**	**Per**	**Charging Rate Slow 15 Hours**	**Charging Rate Standard 5 Hours**	**Charging Rate Fast 1.5 Hours**	**Terminal Type**	**Cat. No.**	**Qty 1+**	**Qty 8+**	**Qty 15+**
4/3 A	3500	1.2	EA	350	1050	3500	Solder tabs	SB-1711	$12.95	$11.35	$10.35
SUB C	3300	1.2	EA	350	670	3300	Solder tabs	SB-1611	$8.95	$7.95	$6.95
D	5000	1.2	EA	500	1500	5000	Nipple	SB-9010	$12.95	$11.35	$10.35
D	9000	1.2	Pkt 2*	900	3000	9000	Nipple	SB-1734	$36.95	$33.45	$29.45
D	9000	1.2	EA	900	3000	9000	Solder tabs	SB-2462	$23.95	$21.35	$18.95
4/3 A	900	1.2	EA	90	270	900	Solder tabs	SB-1717	$4.95	$4.45	$3.90
SUB C	2700	1.2	EA	270	900	2700	Solder tabs	SB-1613	$6.95	$6.25	$5.50
SUB C	2400[1]	1.2	EA	240	740	2400	Solder tabs	SB-1617	$6.95	$6.25	$5.50
9V	200	8.4	EA	20mA	60mA		Clip	SB-2467	$11.95	$10.70	$9.50
C	4500	1.2	Pkt 2*	450	1500	4500	Nipple	SB-1733	$17.95	$15.95	$14.35

Note 1: Cat. SB-1617 high power battery with peak pulse discharge up to 30A and constant current discharge to 15A. All Sub C & D size Ni-MH batteries have new heavy duty solder tabs.

Long Life Pre-Charged Rechargeable Batteries - 1.2V

Like the Sanyo eneloop batteries, these have all the benefits of disposable batteries, but are rechargeable - they feature ultra-low self-discharge technology so they can be used immediately after purchase. They retain 85% of initial capacity after 1 year of storage, are environmentally friendly and are ideal for the most demanding of modern digital devices.

- 4 packs available. supplied in a protective storage case.

TECH TIP!
Will stay charged even when stored for long periods

Type	Cat.	Qty 1+	Qty 8+	Qty 15+
AAA 4 Pack - 800mAh Nipple	SB-1752	$14.95	$13.35	$11.70
AA 4 Pack - 2000mAh Nipple	SB-1750	$19.95	$17.70	$15.70
Sub C Single - 3000mAh Solder Tags	SB-1759	$8.95	$7.95	$6.95
AA Single - 2000mAh Solder Tags	SB-1751	$4.95	$4.45	$3.90

7.2V 3300mAh Ni-MH RC Battery

High capacity, high current discharge Ni-MH pack for radio control cars. Fitted with standard "Tamiya" type plug.

	Cat.	Qty 1+	Qty 8+	Qty 15+
3300mAh	SB-2314	$49.95	$44.90	$39.90

High Discharge 3300mAh Ni-MH Sub C Battery

Perfect replacement for Ni-Cd batteries in power tools and other battery packs. This high discharge Sub C can discharge at over 40A making it clearly superior to the old Ni-Cd technology, effectively making it obsolete. Supplied fitted with quality solder tabs to make into battery packs either as replacements for Ni-Cd batteries or for new projects.

	Cat.	Qty 1+	Qty 8+	Qty 15+
	SB-1611	$8.95	$7.95	$6.95

Ni-Cd Rechargeable Battery Sub C

Specifications	
Size	SUB C
Current Capacity	1800mAh
Voltage	1.2V
Charging rate standard	180mA for 14-16 hours[1]
Charging rate Fast 4-5 hours[1]	600mA
Terminal type	Solder tabs

Note 1: At 20°C
Note 2: Similar to batteries used in the Braun electric toothbrush (2 required).

	Cat.	Qty 1+	Qty 8+	Qty 15+
Each	SB-2468	$6.95	$6.25	$5.50

LI-ION RECHARGEABLES

Rechargeable Li-Ion Battery 3.7V 2200mAh (18650)

18650 Li-Ion battery commonly used in LED torches.

- Use charger MB-3638

Suitable replacement for our 260 lumen CREE® torch ST-3453.

	Cat.	Qty 1+	Qty 8+	Qty 15+
	SB-2403	$19.95	$17.70	$15.70

Rechargeable 3V CR123

Rechargeable CR123A 650mAh battery

- Use charger MB-3581

TECH TIP!
See our charger to suit on page 289

	Cat.	Qty 1+	Qty 10+	Qty 20+
	SB-2411	$13.95	$12.35	$10.95

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

ECLIPSE ALKALINE BATTERIES

Eclipse batteries are made to the same specifications of those well known expensive brands advertised on TV, but at a realistic price. We are very, very proud of these products and stand behind them unconditionally. If you try them & are disappointed with them for any reason we will give you a full refund and another set of ECLIPSE batteries to see if you can work out what went wrong!

ALKALINES - AAA

SB-2426
• Blister pack of 2 x AAA

SB-2413
• Blister pack of 4 x AAA

SB-2328
• Contains 40 x AAA

SB-2334
• Contains 12 x AAA.

SB-2331
• Contains 24 x AAA

Pack	Size	Cat.	Qty 1+	Qty 10+	Qty 20+
2	AAA	SB-2426	$1.95	$1.75	$1.55
4	AAA	SB-2413	$3.95	$3.45	$3.15
12	AAA	SB-2334	$7.95	$6.95	$6.25
24	AAA	SB-2331	$12.95	$11.35	$10.35
40	AAA	SB-2328	$17.95	$15.95	$14.35

ALKALINES - AA

SB-2424
• Blister pack of 2 x AA

SB-2425
• Blister pack of 4 x AA

SB-2329
• Contains 24 x AA

SB-2333
• Contains 12 x AA

SB-2332
• Contains 40 x AA

Pack	Size	Cat.	Qty 1+	Qty 10+	Qty 20+
2	AA	SB-2424	$1.95	$1.75	$1.55
4	AA	SB-2425	$3.95	$3.45	$3.15
12	AA	SB-2333	$7.95	$6.95	$6.25
24	AA	SB-2329	$12.95	$11.35	$10.35
40	AA	SB-2332	$17.95	$15.95	$14.35

ALKALINES - C

SB-2416
• Blister pack of 2 x C

SB-2320
• Contains 4 x C

Pack	Size	Cat.	Qty 1+	Qty 10+	Qty 20+
2	C	SB-2416	$3.95	$3.45	$3.15
4	C	SB-2320	$6.95	$6.25	$5.50

ALKALINES - D

SB-2418
• Blister pack of 2 x D

SB-2321
• Contains 4 x D

Pack	Size	Cat.	Qty 1+	Qty 10+	Qty 20+
2	D	SB-2418	$3.95	$3.45	$3.15
4	D	SB-2321	$7.50	$6.75	$5.95

ALKALINES - 9V

SB-2423
• Blister pack of 1 x 9V

SB-2417
• Contains 6 x 9V

Pack	Size	Cat.	Qty 1+	Qty 10+	Qty 20+
1	9V	SB-2423	$3.95	$3.45	$3.15
6	9V	SB-2417	$13.95	$12.35	$10.95

ALKALINES - MIXED PACK

Handy grab-pack of the most popular Eclipse alkaline batteries. The case is reusable, so just keep it in the pantry and top it up when you run out.

The pack contains:

- 12 x AA
- 10 x AAA
- 4 x C
- 4 x D
- 1 x 9V

BUY IN BULK AND SAVE

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 10+	Qty 20+
Bulk Assorted Pack	SB-1500	$19.95	$17.70	$15.70

Alkaline Batteries

Panasonic PREMIUM ALKALINE BATTERIES

Panasonic® Batteries

NEW 2013

We are proud to announce that after 30 years, we have decided to change our major brand name battery supplier. You do not make these changes lightly, and we have only done so because we believe this new product is so outstanding it's worth the effort. Panasonic® is not a name that you instantly associate with high performance batteries, but we have come to learn that in fact Panasonic® has been manufacturing batteries for many many years, providing OEM manufacturing and strong research and development for many of the big brands you know and recognise. But now have they have decided to keep their latest technology for themselves, and launch into the market under their own brand.

These new Panasonic® Evolta® batteries currently hold an internationally recognised record for the longest lasting AA alkaline battery - yes we know that everyone makes these sorts of claims, but they have the test results to verify it! If you don't believe us, test them for yourself, we are sure you will be impressed!

Having said that, the prices are quite competitive, considering the outstanding performance of the Evolta® product. We are confident that with a name like Panasonic® you can be confident about quality! So if using brand-name batteries is important to you we would love you to try the Panasonic® Evolta® alkaline range.

EVOLTA

Type	Pack	Cat.	Qty 1+	Qty 10+	Qty 20+
AAA	2	SB-2906	$3.45	$3.05	$2.75
AAA	4	SB-2908	$6.45	$5.75	$4.95
AAA	8	SB-2910	$10.95	$9.75	$8.75
AA	2	SB-2900	$3.45	$3.05	$2.75
AA	4	SB-2902	$6.45	$5.75	$4.95
AA	8	SB-2904	$10.95	$9.75	$8.75
C	2	SB-2912	$5.45	$4.90	$4.30
D	2	SB-2914	$5.95	$5.25	$4.75
9V	ea	SB-2916	$5.95	$5.25	$4.75

6, 9, 12V Alkaline Batteries

- Blister packed

(A) 12V CAR ALARM REMOTE CONTROL BATTERY - A23 TYPE/L1028/SLR23/GP23A (HOUSE BRAND)
As used in remote controls for most car alarms.
Size 9.5mm dia x 27mm high. See photo "A".

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
A23	SB-2420	$1.95	$1.75	$1.55

(B) 12V THIN CAR ALARM REMOTE CONTROL BATTERY - L828 TYPE
As used in new generation small sized car alarm remote controls.
Size 8mm dia x 28mm high. See photo "B".

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
L828	SB-2422	$3.20	$2.83	$2.45

(C) 6V ALKALINE BATTERY - L1325/4LR44 TYPE
These are the same size as A544 batteries. Used mainly in cameras.
Size 13mm dia x 25mm. See photo "C".

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
L1325/4LR44	SB-2415	$3.25	$2.90	$2.60

(D) 6V ALKALINE BATTERY
No L1016/11A. Size: 9.5mm dia x 15mm high. See photo "D".

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
L1016/11A	SB-2421	$2.95	$2.60	$2.30

(E) 9V ALKALINE BATTERY - GP29A/L822 TYPE
General purpose remote control battery. Size: 7.7(dia) x 21.4(L)mm
Capacity 18mAh. See photo "E".

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
GP29A/L822	SB-2427	$3.95	$3.45	$3.15

12v Panasonic Alkaline

Car alarm battery.

- LRV08, A235, L1028.

NEW 2013

Type	Cat.	Qty 1+	Qty 10+	Qty 20+
A23	SB-2970	$9.45	$8.50	$7.50

N Size Extra Heavy Duty Zinc Chloride - Vinnic

These batteries are superior to standard carbon-zinc cells but are much cheaper and have a longer shelf life.

- Blister Packed

Type	Pack	Cat.	Qty 1+	Qty 10+	Qty 20+
N	2	SB-2346	$3.45	$3.05	$2.75

Eclipse Lantern Battery

A 6 volt heavy duty battery as used in many torches including the very popular Dolphin.

- Carbon zinc battery

Cat.	Qty 1+	Qty 10+	Qty 20+
SB-2394	$5.45	$4.90	$4.30

CORDLESS TELEPHONE BATTERIES

Telephone Batteries to Suit Uniden Phones

NEW 2013

A collection of replacement batteries suitable for Uniden cordless phones. All are heat shrink wrapped with suitable connectors so it's a simple drop in replacement.

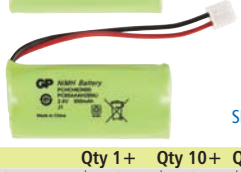
SB-1651

2.4V 800mAH Ni-MH - 80AAM2BMS
SB-1651

SB-1653

2.4V 650mAH Ni-MH
CTB97 - 65AAAH2BMS
Suits Uniden models: BT-652, BT652, CTB97
SB-1653

2.4V 650mAH Ni-MH
CTB96 - 65AAAH2BMJ
SB-1654



SB-1654

		Cat.	Qty 1+	Qty 10+	Qty 20+
2.4V / 800mAh	80AAM2BMS	SB-1651	$17.95	$15.95	$14.35
2.4V / 650mAh	65AAAH2BMS	SB-1653	$17.95	$15.95	$14.35
2.4V / 650mAh	65AAAH2BMJ	SB-1654	$17.95	$15.95	$14.35

Cordless Telephone Batteries – Extended Range

Replacement batteries for cordless telephones.

3.6V 600mAh Ni-MH

- Nominal voltage 3.6V • Nominal capacity 600mAh
- Bank of three batteries next to each other
- Dimensions: 30(H) x 14(W) x 41(L)mm
- Supplied with lead and two pin Mitsumi plug.
- Suits Panasonic KXT3716, 3806, 3826, 4026, 4027, 4036, 4046, 4047, 4300 & 4317
- Uniden CT301, XC360, XC310, XC320, XC340, XC610
- Also suits various Sony & James Hardie phones.

Cat.	Qty 1+	Qty 10+	Qty 20+
SB-1645	$12.95	$11.35	$10.35

3.6V 650mAh Ni-MH

- Nominal voltage: 3.6V
- Suitable for Panasonic KXTC1220/KXTC1230
- GP Battery No. GP65AAAH3BMS

Cat.	Qty 1+	Qty 10+	Qty 20+
SB-1646	$14.95	$13.35	$11.70

3.6V 1000mAh Ni-Cd

- Nominal voltage: 3.6V
- Suitable for Panasonic KX-TC1801 - KT-TC1890
- GP Battery No. GP100AAS3BMS

Cat.	Qty 1+	Qty 10+	Qty 20+
SB-1648	$16.95	$14.95	$13.35

3.6V 850mAh Ni-MH

- Nom voltage 3.6V
- Suitable for Uniden WDECT2315 - WDECT2310, DSS5805, 5855, 5865
- GP battery No. GP85AAALH3BMS

Cat.	Qty 1+	Qty 10+	Qty 20+
SB-1634	$28.95	$25.95	$22.95

LITHIUM BATTERIES

Eclipse Lithium 1.5V AAA Batteries

Lithium Iron (Li Fe) batteries pack 5-6 times the capacity of alkaline equivalents. Using these represents a 40-60% cost saving over alkaline batteries.

- Not rechargeable.

AAA Specifications	
Rated terminal voltage	1.5V
Internal impedance	420 mΩ
Rated capacity	1200mAh
Continuous load	600mA
Storage life	10 years

	Pkt.	Cat.	Qty 1+	Qty 8+	Qty 15+
AAA	2	SB-2364	$5.95	$5.25	$4.75
AAA	4	SB-2365	$9.95	$8.75	$7.75

Eclipse Plus Lithium AAA 1.5V Battery Packs

NEW 2013

This range of Lithium Iron Disulfide (LiFeS2) batteries pack 5-6 times the capacity of their alkaline equivalents in high power applications. Using these represents a 40-60% cost saving over alkaline batteries. Refer to our website for discharge performance specifications with comparison to leading brand name Lithium batteries.

- Not rechargeable

Specifications	
Capacity	>1200mAh
Max constant load	1500mA
Max pulse load	2000mA
Terminal voltage	1.5V

	Pkt.	Cat.	Qty 1+	Qty 10+	Qty 20+
AAA	2	SB-2351	$7.95	$6.95	$6.25
AAA	4	SB-2352	$13.95	$12.35	$10.95

Eclipse Plus Lithium AA 1.5V Battery Packs

NEW 2013

This range of Lithium Iron Disulfide (LiFeS2) batteries pack 5-6 times the capacity of their alkaline equivalents in high power applications. Using these represents a 40-60% cost saving over alkaline batteries. Refer to our website for discharge performance specifications with comparison to leading brand name Lithium batteries.

- Not rechargeable

Specifications	
Capacity	>3000mAh
Max constant load	2000mA
Max pulse load	3000mA
Terminal voltage	1.5V

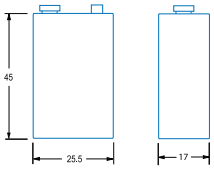
	Pkt.	Cat.	Qty 1+	Qty 10+	Qty 20+
AA	2	SB-2355	$8.95	$7.95	$6.95
AA	4	SB-2357	$14.95	$13.35	$11.70

Eclipse Lithium 9V Battery 1200mAh

As you know, lithium batteries are essential for such things as smoke detectors, wireless alarm systems, garage door opener remotes etc. They are a bit more expensive, but your family's lives are worth a couple of bucks. Available in single or twin pack:

- Not rechargeable.

Please note that the physical size of these batteries is slightly different to standard 9V batteries.



	Pkt.	Cat.	Qty 1+	Qty 8+	Qty 15+
9V	Single	SB-2397	$14.95	$13.35	$11.70
9V	2	SB-2396	$24.95	$22.35	$19.70

1.5V Lithium Long Lasting Batteries

The perfect power source for high drain current draw cameras, camcorders, personal stereos, mobile phones, palm top computers and TVs.

- Up to 3 times the life of any alkaline battery.
- Up to 10 times the life of ordinary carbon zinc battery
- Guaranteed shelf life up to 10 years.
- 1.5V, 1.4Amp hour (AA).
- Blister Packed
- Not rechargeable.

Made in Japan

Energizer

	Pkt.	Cat.	Qty 1+	Qty 8+	Qty 15+
AAA	2	SB-2372	$13.50	$11.95	$10.70
AA	2	SB-2375	$13.50	$11.95	$10.70

CR123A 3V Lithium Batteries - 6 Pack

Contains 6 CR123A lithium camera batteries,commonly used in LED torches and cameras.

- Not rechargeable

	Pkt.	Cat.	Qty 1+	Qty 8+	Qty 15+
CR-123A	6	SB-2324	$17.95	$15.95	$14.35

Lithium Camera Batteries

Blister Packed

- Not rechargeable.

SB-2404 SB-2401 SB-2402 SB-2400

Cat.	Type	Volt	Current
SB-2400	CR123A	3V	1300mA
SB-2401	CR-P2	6V	1300mA
SB-2402	2CR5	6V	1300mA
SB-2404	CR2	3V	750mA

	Cat.	Qty 1+	Qty 8+	Qty 15+
CR123A	SB-2400	$4.95	$4.45	$3.90
CR-P2	SB-2401	$9.95	$8.75	$7.75
2CR5	SB-2402	$9.95	$8.75	$7.75
CR2	SB-2404	$4.95	$4.45	$3.90

Panasonic® Lithium Camera Batteries

NEW 2013

- Not rechargeable.

Cat.	Type	Volt	Current
SB-2980	CR123	3V	1500mA
SB-2982	CR2	3V	800mA

Panasonic

	Cat.	Qty 1+	Qty 10+	Qty 20+
CR123	SB-2980	$9.45	$8.50	$7.50
CR2	SB-2982	$9.95	$8.75	$7.75

GIFT CARD

Can't find what to buy?
Give a Jaycar Gift card and let them choose!

COMPUTER BACKUP

3.6V Lithium Computer Backups

SB-1770 SB-1774 SB-1771 SB-1775

These high capacity batteries are used in many desktop and notebook computers to retain date, time and configuration information while the computer is switched off. They are also useful where long shelf life is important or when the battery is to be fitted into difficult or sealed access areas. Storage life is up to 10 years.

- 14.5mm diameter
- Not rechargeable.

Cat.	Size	Capacity (mAh)	Max Current (mA)	Height Connect (mm)
SB-1770	Half AA	900	50	25mm Nipple
SB-1771	Half AA	900	50	25mm Axial Lead
SB-1774	AA	2000	100	50mm Nipple
SB-1775	AA	2000	100	50mm Axial Lead

	Cat.	Qty 1+	Qty 10+	Qty 20+
	SB-1770	$11.95	$10.70	$9.50
	SB-1771	$13.95	$12.35	$10.95
	SB-1774	$16.95	$14.95	$13.35
	SB-1775	$18.95	$16.95	$14.95

3.6V Lithium

Supplied with PC mount pins.

- Not rechargeable.

Specifications	
Operating voltage	3.6 to 3.7V
Termination voltage	2.5V
Pin spacing	25mm
Capacity	0.6Ah to plus 85°C
Temperature	minus 40°C
Storage period	10 years.
Size	24(W) x 14(Dia)mm.

	Cat.	Qty 1+	Qty 10+	Qty 20+
	SB-2540	$15.95	$14.35	$12.70

TECH TIP

LITHIUM CAN BE DANGEROUS

All the batteries on this page are non-rechargeable. Do not try to recharge any of these lithium batteries.

There are basically two types of lithium batteries: rechargeable and non-rechargeable. Rechargeable batteries are usually referred to as Lithium-Ion or Lithium Polymer. The ONLY WAY to recharge such batteries is with a dedicated charger for the particular battery size, such as CRV-3 or CR123A types. Such chargers are specifically designed to strictly manage the special charge rate requirements for rechargeable lithium ion or lithium polymer cells.

Standard Lithium non-rechargeable batteries are not designed to be recharged - even with a Lithium-Ion or Lithium-Polymer charger. Indeed there is a VERY HIGH likelihood that the battery will violently EXPLODE if any attempt is made to charge a standard Lithium battery.

DO NOT try to recharge ANY lithium battery with an undedicated charger, such as lead acid or Ni-Cd charger, under any circumstances.

All batteries on this page are non-rechargeable. Do not try to recharge any of these lithium batteries.

Specialty (Button Cell) Batteries

BUTTON CELL BATTERIES

1.5V Silver Oxide Batteries

These batteries generally have a protective layer of silicon on them.
Please wipe with a cloth and avoid touching with fingers before installing them.

Type #	Capacity	Eveready	Vinnic	Maxell	IEC	Other	Pk.	Dia x H(mm)	Cat.	Qty 1+	Qty 8+	Qty 15+
357	155mA	357	S1154E	SR44W	SR44	613/RW12/32/S1154S	ea	11.6 x 5.4	SB-2512	$1.95	$1.75	$1.55
362	21mA	362	S721E	S721SW	SR58	SG11/SR720/532/19/RW310	ea	7.9 x 2.1	SB-2530	$1.95	$1.75	$1.55
364	20mA	364	S621E	S621SW	SR60	SG1/SR620/531/31/RW320	ea	6.8 x 2.1	SB-2501	$1.95	$1.75	$1.55
371	44mA	-	-	SR920SW	SR69	SG6/537/30/RW315	ea	9.5 x 2.1	SB-2534	$1.95	$1.75	$1.55
377	27mA	-	-	SR626SW	SR66	SG4/37	ea	6.8 x 2.6	SB-2504	$1.95	$1.75	$1.55
389	60mA	-	-	SR1130SW	SR54	RW49/AG10/G10/SG10/554	ea	11.6 x 3.05	SB-2508	$1.95	$1.75	$1.55
391	40mA	-	-	SR1121W	SR55	SG8/68/553/28/RW40	ea	11.6 x 2.1	SB-2542	$1.95	$1.75	$1.55
392	38mA	-	-	SR41W	SR41	SG3/63/547/2/RW27/RW47	ea	7.9 x 3.6	SB-2502	$1.95	$1.75	$1.55
393	65mA	-	-	SR754W	SR48	SG5/65/546/15/RW28/RW48	ea	7.9 x 5.4	SB-2532	$1.95	$1.75	$1.55
396	25mA	-	-	SR726W	SR59	SG2/556/29/RW411	ea	7.9 x 2.6	SB-2510	$1.95	$1.75	$1.55
399	42mA	-	-	SR927W	SR57	SG7/SR926/543/35/RW413	ea	9.5 x 2.7	SB-2536	$1.95	$1.75	$1.55

1.5V Alkaline Batteries

NEW 2013

Type #	Capacity	Eveready	Vinnic	Maxell	VARTA	Other	Pk.	Dia x H(mm)	Cat.	Qty 1+	Qty 8+	Qty 15+
LR936	45mA		-	LR45		AG9	ea	9.5 x 3.6	SB-2513	$1.50	$1.35	$1.20
LR43	90mA	166	-	LR43	V12GA	-	ea	11.6 x 4.2	SB-2514	$1.50	$1.35	$1.20
LR44	120mA	A76	-	LR44	V13GA	357A	ea	11.6 x 5.4	SB-2516	$1.50	$1.35	$1.20
LR44 (Panasonic) NEW	120mA	LR44	-	LR44	V13GA	357A	Pk.2	11 x 5	SB-2950	$2.95	$2.60	$2.30
L1121	120mA	391	L1121	LR1120	V8GA	D191A	ea	11.6 x 2.2	SB-2519	$1.50	$1.35	$1.20

3V Lithium Batteries

- Not rechargeable.

Type #	Capacity	Pk.	Dia x H(mm)	Cat.	Qty 1+	Qty 8+	Qty 15+
CR1220	30mA	ea	12 x 2.0	SB-2527	$2.95	$2.60	$2.30
CR1616	45mA	ea	16 x 1.5	SB-2525	$2.95	$2.60	$2.30
CR1620	50mA	ea	16 x 2.0	SB-2526	$2.95	$2.60	$2.30
CR1632	150mA	ea	16 x 3.2	SB-2529	$2.95	$2.60	$2.30
CR2016	60mA	ea	20 x 1.6	SB-2524	$2.95	$2.60	$2.30
CR2025	110mA	ea	20 x 2.5	SB-2520	$2.95	$2.60	$2.30
CR2032	140mA	ea	20 x 3.2	SB-2522	$2.95	$2.60	$2.30
CR2450 (Eclipse)	575mA	ea	25.5 x 5.0	SB-2946	$4.95	$4.45	$3.90
CR2430	270mAh	ea	24.5 x 3.0	SB-2523	$2.95	$2.60	$2.30

3V Lithium Batteries - Panasonic

- Not rechargeable.

NEW 2013

Panasonic

Type #	Capacity	Pk.	Dia x H(mm)	Cat.	Qty 1+	Qty 10+	Qty 20+
CR2016	90mAh	ea	20 x 1.6	SB-2940	$4.95	$4.45	$3.90
CR2025	165mAh	ea	20 x 2.5	SB-2942	$4.95	$4.45	$3.90
CR2032	220mAh	ea	20 x 3.2	SB-2944	$4.95	$4.45	$3.90

Standard Button Cell Holder

PCB mount holder, suits button cells, with diameter up to 20mm, which includes the 3V lithium batteries.

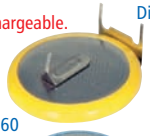
*May vary slighty to one shown.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	PH-9238	$1.95	$1.75	$1.55

3V PCB Mounting Lithium Coin Batteries

Two of the most popular solder-in PCB mounting type batteries.
All 3 volt.

- Not rechargeable.



Cat. SB-1760

Cat. SB-1762

Diagram 1

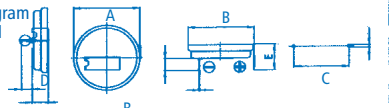
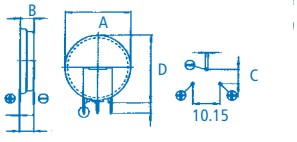


Diagram 2



Dimensions (mm)

Capacity	Part No.	Diag.	Cat.	A	B	C	D
200mAh	CR2032VC	2	SB-1762	20	3.2	3.5	21
400mAh	CR2430-HC-33	1	SB-1760	24.5	24.7	17.8	9.45
540mAh	CR2540NRH	2	SB-1622	24.5	24.5	17.8	11.35

Part No.	Capacity	Cat.	Qty 1+	Qty 10+	Qty 20+
CR2430-HC-33	400mAh	SB-1760	$3.95	$3.45	$3.15
CR2032VC	200mAh	SB-1762	$2.45	$2.15	$1.95
CR2540NRH	540mAh	SB-1622	$5.75	$4.95	$4.60

BATTERY TYPE COMPARISON

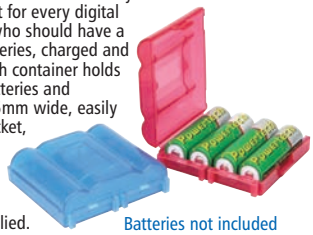
TYPE (CHEMISTRY)	COMMON NAME(S)	NORMAL CELL VOLTS	INTERNAL RESISTANCE	MAXIMUM DIS-CHARGE RATE	PROS & CONS	TYPICAL APPLICATION
Carbon-Zinc	Standard Duty	1.5	MEDIUM	MEDIUM	Low cost, available in various sizes; but terminal voltage drops steadily during cell life.	Torches, radios, toys, & general purpose, electronic equipment.
Zinc Chloride	Heavy Duty	1.5	LOW	MEDIUM TO HIGH	Low cost, better at higher discharge rates & at lower temperatures; terminal voltage still drops.	Cassette tape players/recorders & other motor-driven items, clocks, calculators, remote controls, multimeters, etc.
Alkaline - Zinc-Manganese Dioxide	Alkaline	1.5	VERY LOW	HIGH	Better for high continuous or pulsed loads and at low temperatures; but terminal voltage again drops.	Heavy duty torches, photoflash units, battery shavers, digital cameras, hand-held transceivers, portable CD players etc.
Lithium-Manganese Dioxide	Lithium	3.0	LOW	MEDIUM TO HIGH	High energy density, very low self-discharge rate (excellent shelf life) good temperature tolerance.	Watches, calculators, cameras (digital & film), DMMs, and other test instruments.
Zinc-Mercuric Oxide	Mecury Cel	1.35	LOW	LOW	High energy density (compact); very flat discharge curve; good at higher temperatures.	Calculators, pagers, hearing aids, watches, test instruments (voltage reference).
Zinc-Silver Oxide	Silver Oxide Cell	1.5	LOW	LOW	High energy density (very compact); very flat discharge curve; reasonable at lower temperatures.	Calculators, pagers, hearing aid, watches, test instruments (voltage reference).
Zinc-Oxygen	Zinc Air Cell	1.45	MEDIUM	LOW	High energy density, very lightweight; flat discharge curve; but must have access to air.	Hearing aids and pagers.

BATTERY CONTAINERS

4 x AA Battery Container

PACK OF 2

Handy battery containers to store your AA batteries. Perfect for every digital camera owner who should have a spare set of batteries, charged and ready to go. Each container holds up to 4 x AA batteries and measure only 65mm wide, easily fitting in the pocket, purse or camera bag.



- One red and one blue supplied.

Batteries not included

Cat.	Qty 1+	Qty 10+	Qty 25+
HB-6359	$4.45	$3.95	$3.45

BATTERY TESTERS

Universal Battery Tester

NEW 2013

A step above most other models this tester applies a load to the battery to get a measurement of the remaining capacity available for use. Tested battery capacity is shown as a percentage on the LCD screen together with the battery voltage.

- Suitable for testing:
  - AA, AAA, C, and D cells
  - 9V batteries
  - 1.5 and 3V coin and button cells
  - 6 and 12V cylindrical cells
- Includes 2 x LR44 batteries
- Dimensions: 128(L) x 45(W) x 20(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
QP-2256	$14.95	$13.35	$11.70

Battery / Bulb / Fuse Tester

Battery tester with fuse and bulb checker. Tests AAA, AA, C, D (1.5V) & 9V batteries on the easy-to-read, colour-coded analogue display. It checks bulbs and fuses, giving a 'good' or 'replace' indication, and will also test larger 1.5V button batteries like the LR-44. There is also a handy compartment to store spare fuses, bulbs and button cells.

- Measures: 150mm long
- Uses 9V Battery (included).

Cat.	Qty 1+	Qty 4+	Qty 10+
QP-2252	$9.95	$8.75	$7.75

All in One Battery Tester

Here's a modern day battery tester to suit all your needs. This handy unit will test all types of batteries currently out there on the market including standard AA/AAA/C/D/9V batteries, button cells and lithium batteries such as those used in digital cameras. The LCD indicates the level of capacity so you'll never get caught out on a day trip with 1/2 flat batteries in your digital camera.

- One product to test all those batteries in your kitchen drawer before use!!

Note: Batteries not included

Cat.	Qty 1+	Qty 4+	Qty 10+
QP-2253	$23.95	$21.35	$18.95

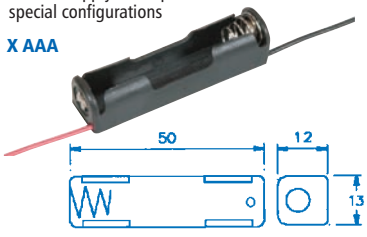
BATTERY HOLDERS

AAA Size

The holders are moulded in Delrin with corrosive resistant nickel plated springs and studs.

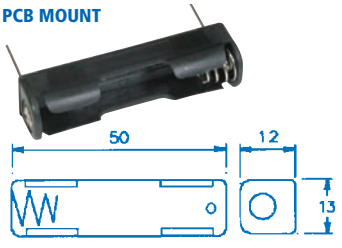
- All have connection wires 150mm long, unless marked
- We can supply OEM quantities of holders with special configurations

1 X AAA



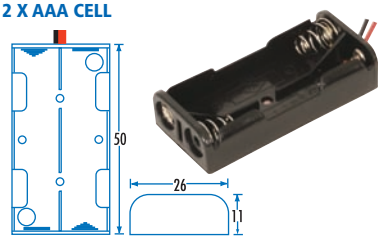
Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9260	$0.80	$0.70	$0.62

1 X AAA PCB MOUNT



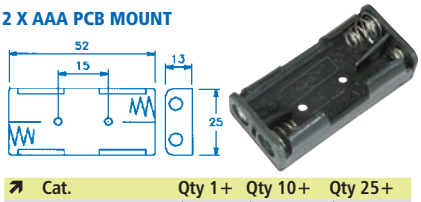
Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9261	$0.80	$0.70	$0.62

2 X AAA CELL



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9226	$1.45	$1.30	$1.15

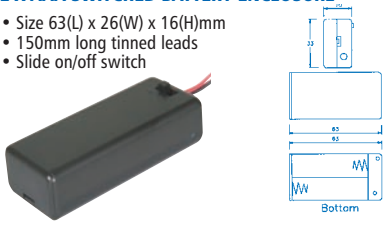
2 X AAA PCB MOUNT



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9264	$1.00	$0.90	$0.80

2 X AAA SWITCHED BATTERY ENCLOSURE

- Size 63(L) x 26(W) x 16(H)mm
- 150mm long tinned leads
- Slide on/off switch

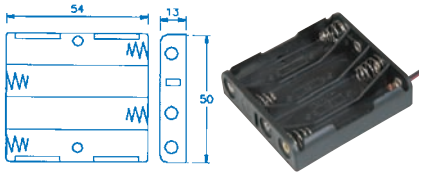


Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9288	$2.45	$2.15	$1.95

RELATED PRODUCT...

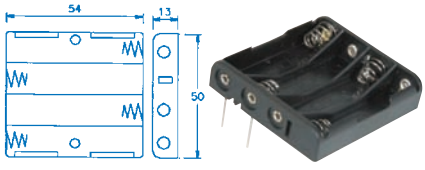
See our range of Eclipse batteries on page 291.

4 X AAA SIDE BY SIDE



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9268	$2.45	$2.15	$1.95

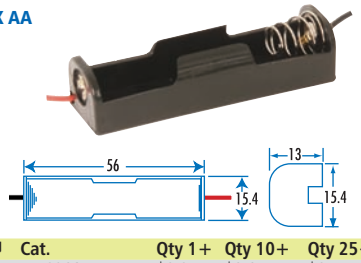
4 X AAA PCB MOUNT



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9270	$2.45	$2.15	$1.95

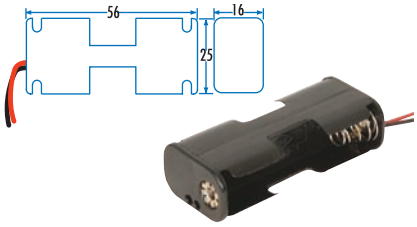
AA Size

1 X AA



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9203	$0.95	$0.85	$0.75

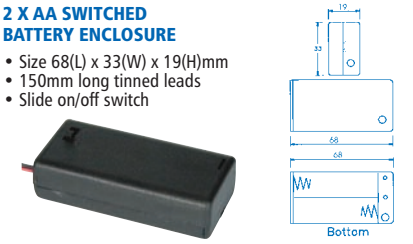
2 X AA SIDE BY SIDE



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9202	$0.95	$0.85	$0.75

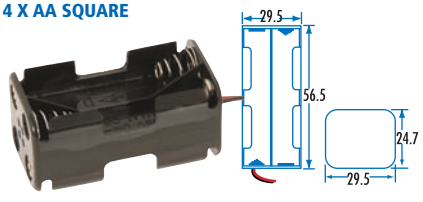
2 X AA SWITCHED BATTERY ENCLOSURE

- Size 68(L) x 33(W) x 19(H)mm
- 150mm long tinned leads
- Slide on/off switch



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9280	$2.45	$2.15	$1.95

4 X AA SQUARE

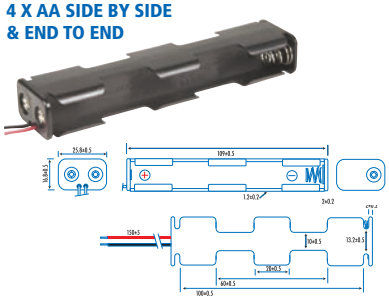


Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9200	$1.65	$1.45	$1.30

Battery Retention

BATTERY HOLDERS (CONTINUED)

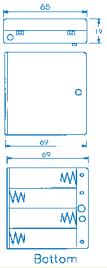
4 X AA SIDE BY SIDE & END TO END



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9204	$1.65	$1.45	$1.30

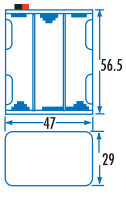
4 X AA SWITCHED BATTERY ENCLOSURE

- Size 69(L) x 65(W) x 19(H)mm
- 150mm long tinned leads
- Slide on/off switch



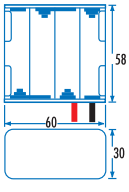
Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9282	$2.95	$2.60	$2.30

6 X AA 2 BY 3 SIDE BY SIDE



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9206	$1.75	$1.55	$1.40

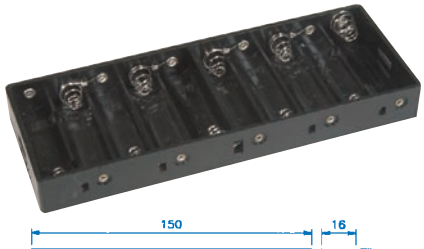
8 X AA 2 ROWS OF 4 SQUARE

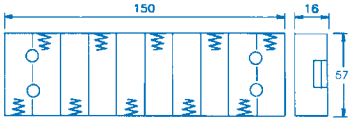


Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9209	$1.95	$1.75	$1.55

10 X AA SIDE BY SIDE

- 150mm long tinned leads

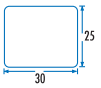




Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9210	$3.95	$3.45	$3.15

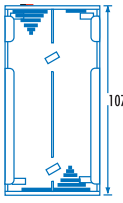
C Size

1 X C CELL



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9212	$1.75	$1.55	$1.40

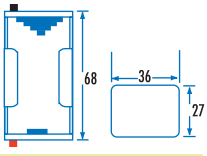
4 X C CELL 2 ROWS OF 2 END TO END



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9216	$2.25	$1.95	$1.80

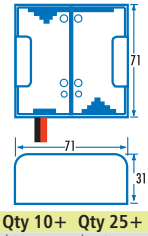
D Size

1 X D CELL



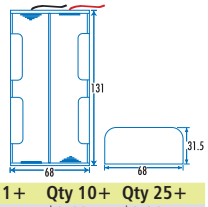
Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9218	$1.75	$1.55	$1.40

2 X D CELL SIDE BY SIDE



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9220	$2.45	$2.15	$1.95

4 X D CELL 2 ROWS OF 2

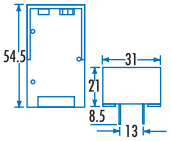


Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9222	$2.95	$2.60	$2.30

9V Size

PC MOUNT 9V

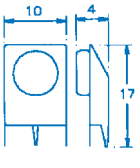
- Plastic holder for 9V batteries
- Battery connection 2 pins 13mm apart.



Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9235	$1.00	$0.90	$0.80

9V PC MOUNT CLIPS

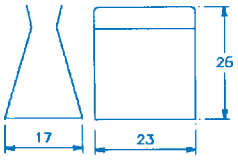
PC mount pins to suit a 9V battery. Supplied as a pair.

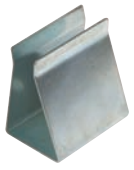


Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9239	$1.95	$1.75	$1.55

9V Size (continued)

9V HOLDER





Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9237	$0.70	$0.62	$0.55

STANDARD 9V SNAP-ON

Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9230	$0.40	$0.35	$0.30

QUALITY 9V BATTERY CLIP

If your project or product requires a better than average quality 9V battery clip, look no further, we have them.

Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9232	$0.70	$0.62	$0.55

BEST QUALITY "SAFETY" 9V BATTERY CLIP

We call these safety clips because the side of the clip totally covers the battery terminals and sits flush on the top of the battery. Supplied with high quality AWG24 connection cable.

Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9233	$0.90	$0.80	$0.70

BEST QUALITY "T" SAFETY 9V BATTERY CLIP

Same as the PH9233 but the wire exits the clip at the side, hence the "T" type.

Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9234	$0.90	$0.80	$0.70

Lantern Style Battery Adaptor 4 x D Cells

Uses 4 x 4 D cells to make up a standard 6V lantern battery.

Cat.	Qty 1+	Qty 10+	Qty 25+
PH-9224	$4.95	$4.45	$3.90

Battery Bank 4 x AA with USB Socket & Switch

Provides 5VDC power though the USB socket by using 4 x AA batteries. The unit makes a superb back-up charger for any USB powered device such as an MP3 player or PDA and also features a slide on/off switch.
Size: 15(H) x 63(W) x 80(D)mm

Batteries not included

Cat.	Qty 1+	Qty 10+	Qty 25+
MP-3083	$6.95	$6.25	$5.50

SWITCHMODE AC ADAPTORS

Switchmode AC Adaptors - all of which meet the requirements of the MEPS guidelines and they all feature high levels of efficiency as well as a low standby power consumption, on top of the regular features you have come to expect from our range. The range is compact and has increased the maximum power output of each model - all at the same low price you have always paid.

REGULATED - FIXED VOLTAGE

They are extremely light and compact; enough to snugly and neatly fit side by side on a powerboard - no more wasted AC outlets!

Ideal for power boards

They incorporate high-efficiency circuitry, built in EMI filter, short circuit protection, over current protection and thermal shutdown capability.

5 Watt - Ultra-slim

- Input: 100-240VAC 50/60Hz
- Fit side-by-side on a powerboard
- Supplied with 7 plugs
- Safety Approval No. N20276
- Meets MEPS requirements

Voltage VDC	Current Amps	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
5	1	N20276	MP-3144	$17.95	$15.95	$14.35
6	0.8	N20276	MP-3145	$17.95	$15.95	$14.35
9	0.5	N20276	MP-3146	$17.95	$15.95	$14.35
12	0.4	N20276	MP-3147	$17.95	$15.95	$14.35

15 Watt - Slim High Power

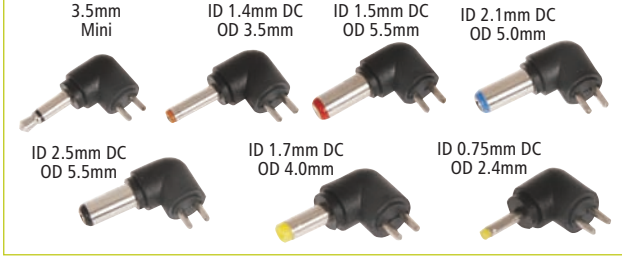
Regulated output voltage, small size and higher power output make these AC adaptors suitable for thousands of different applications.

- Input: 100-240VAC 50/60Hz
- Fit side-by-side on a powerboard
- Supplied with 7 plugs
- Safety Approval no. NSW22419
- Meet MEPS requirements

Voltage VDC	Current Amps	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
5	3.0	NSW22419	MP-3480	$21.95	$19.70	$17.35
6	2.2	NSW22419	MP-3482	$21.95	$19.70	$17.35
9	1.7	NSW22419	MP-3484	$21.95	$19.70	$17.35
12	1.5	NSW22419	MP-3486	$21.95	$19.70	$17.35

Plugs Supplied with Switchmode AC Adaptors

The 7 plugs supplied with switchmodes are shown here, and are not interchangeable with those on our transformer style range shown on later pages.



25 Watt - Extra High Power

- Input: 100-240VAC 50/60Hz
- Huge output power
- Supplied with 7 plugs
- Safety Approval no. NSW22824
- Meet MEPS requirements

Voltage VDC	Current Amps	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
9	3.0	NSW22824	MP-3496	$29.95	$26.90	$23.70
12	2.5	NSW22824	MP-3490	$29.95	$26.90	$23.70
15	2.0	NSW22824	MP-3492	$29.95	$26.90	$23.70
24	1.25	NSW22824	MP-3494	$29.95	$26.90	$23.70

UNREGULATED - FIXED VOLTAGE

5 Watt - Unregulated Ultra-Slim

These super-slimline switchmode AC adaptors give an unregulated DC output, meaning that when loaded below their rated power, they will provide a slightly higher output voltage.

- Input: 100-240VAC, 50/60Hz
- Extra small, will fit side-by-side on a powerboard
- Unregulated output voltage
- Direct replacement for old transformer type AC adaptors
- Supplied with 7 DC plugs
- Safety approval no. NSW22823
- Meets MEPS requirements

Voltage VDC	Current Amps	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
9	0.55	NSW22823	MP-3280	$14.95	$13.35	$11.70
12	0.4	NSW22823	MP-3282	$14.95	$13.35	$11.70

MULTI-VOLTAGE

Switchmode Plugpacks with USB Outlets

These switchmode plugpack adaptors are slim in size, lightweight, and feature manually selectable variable voltage outputs. All are MEPS compliant and come supplied with 7 plugs and a USB output socket. (MP-3318 does not include USB socket)

7.2W 3 - 12VDC	**Cat. MP-3310**
Input voltage	100 - 240VAC
Output voltage	3, 4.5, 5, 6, 7.5, 9, 12VDC
Output current	600mA (max)
Dimensions	69(L) x 39(W) x 31(H)mm
12W 3 - 12VDC	**Cat. MP-3312**
Input voltage	100 - 240VAC
Output voltage	3, 4.5, 5, 6, 7.5, 9, 12VDC
Output current	1000mA (max)
Dimensions	75(L) x 44(W) x 44(H)mm
18W 3 - 12VDC	**Cat. MP-3314**
Input voltage	100 - 240VAC
Output voltage	3, 4.5, 5, 6, 7.5, 9, 12VDC
Output current	1500mA (max)
Dimensions	82(L) x52(W) x 45(H)mm
27W 3 - 12VDC 7 output plugs	**Cat. MP-3316**
Input voltage	100 - 240VAC
Output voltage	3, 4.5, 5, 6, 7.5, 9, 12VDC
Output current	2250mA (max)
Dimensions	80(L) x 65(W) x 50(H)mm
25W 9 - 24VDC Plugpack	**Cat. MP-3318**
Input voltage	100 - 240VAC
Output voltage	9, 12, 13.5, 15VDC @ 1.5A, 18, 20VDC @ 1.2A, 24VDC @ 1A
Dimensions	96(L) x 50(W) x 30(H)mm

Voltage VDC	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
3 - 12	NSW24400	MP-3310	$19.95	$17.70	$15.70
3 - 12	NSW24401	MP-3312	$24.95	$22.35	$19.70
3 - 12	SAA091002EA	MP-3314	$29.95	$26.90	$23.70
3 - 12	SAA091002EA	MP-3316	$34.95	$31.45	$27.90
9 - 24	SAA091002EA	MP-3318	$34.95	$31.45	$27.90

Switchmode Mains Adaptor 3 - 13.8VDC 2.5A

Variable desktop power supply with binding post and 7 DC plugs. 1.5 metre lead with interchangeable connectors.

Specifications	
Output voltage	3, 5, 6, 9, 12, 13, 8VDC
Output current	2.5A max
Dimensions	140(L) x 80(W) x 42(H)mm

Voltage VDC	Current Amps	Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
13.8	2.5	SGSEA/100289	MP-3308	$39.95	$35.90	$31.90

AC Adaptors & Desktop Plugpacks

DESKTOP STYLE AC ADAPTORS

These products meet the requirements of Energy Star, the European Commission Code of Conduct, and of course California's legislation, suppliers of electronic equipment requiring an external power supply can ship their products worldwide without needing to understand the complex new systems.

Green Power Desktop 10W Switchmode Adaptor

Electronic equipment suppliers are now having to get green. Legislation is being introduced in California and Europe which requires external power supplies to comply with minimum energy efficiency requirements. It is no longer possible to sell external power supplies which don't comply with these new "Green Power" requirements. With other regulations coming in around the world, it is only a matter of time before these units become the norm.

This 10W 5VDC adaptor is the first in what we expect will become a series of these power supplies. Meeting the requirements of Energy Star, the European Commission Code of Conduct, and of course California's new legislation, suppliers of electronic equipment requiring an external power supply can ship their products worldwide without needing to understand the complex new systems.

Specifications	
Input Voltage	100 - 240VAC for worldwide use
Input Current	0.5A RMS Max
Input AC Frequency	47 - 63Hz
Input Connection	IEC320 C8 socket
Output Voltage	5VDC Regulated
Output Current	2A
Output Power Cord	1.8M long terminated with 2.5mm DC plug (centre positive)
Power saving state	Under 0.3W
Size	75.5(L) x 44.5(W) x 26(H)mm
Electrical Safety Approved	Approval Number: V05226

Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
V05226	MP-3236	$24.95	$22.35	$19.70

60W - 12V, 19VDC & 45W 24VDC

Versatile switchmode power supplies in a range of different configurations. All have high output currents and are low-profile for easy mounting.

- Each requires a separate IEC 240VAC lead - Cat PS-4106
- Output cable terminated to fixed 2.5mm DC plug except for MP-3243 which includes 5 output plugs

MP-3242/43 = SAA090025EA
MP-3246/48 = SAA090329EA

Voltage(VDC)	Current(A)	Cat.	Qty 1+	Qty 5+	Qty 10+
12	5	MP-3242	$59.95	$53.95	$47.90
12 (5 plugs)	5	MP-3243	$64.95	$58.50	$51.95
19	3.2	MP-3246	$59.95	$53.95	$47.90
24	2.7	MP-3248	$59.95	$53.95	$47.90

65W - 48VDC

48V power supply specifically designed for power over Ethernet applications.

Specifications	
Voltage	90 - 264VAC
Output voltage	48V @ 1.35A
Power output	65W Max.
Over voltage protection	Shutdown latch mode
Over current protection	2 step controlled current source
Short circuit protection	Built-in
Efficiency	85% min. at full load
Ripple/noise (mVpp)	2%

Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
A/12702EA	MP-3249	$59.95	$53.95	$47.90

120W 12VDC 10A Desktop Style Switchmode Power Supply

High current switchmode desktop power supply. Suitable for various power requirements, including large surveillance systems to replace a number of smaller plugpacks. DC splitter cables available separately.

- Includes IEC power lead
- Output cable terminated to fixed 2.1mm DC plug

Specifications	
Input Voltage	220-240VAC
Output Voltage	12VDC
Output Current	10A
Output Connector	2.1mm DC plug
Output Cable Length	1.2m
Dimensions	174(L) x 72(W) x 44(H)mm

Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
A/1401EA	MP-3241	$79.95	$71.95	$63.95

60W - 12VDC 5A

Specifications	
Input	220 - 240VAC
Output	12VDC @ 5 amps
Dimensions	160(L) x 85(W) x 40(H)mm
Input lead lengths	1.2m
Output lead length	1.8m
Termination	2 pin connector

- Green LED power indicator
- Switchmode

Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
N20157	GH-1379	$29.95	$26.90	$23.70

TRANSFORMER TYPE AC ADAPTORS

DC Output - Regulated 12VDC 500mA

- CCD Camera Power Supply
- Terminates to a 2.1mm ID / 5.5mm OD DC plug, centre positive.

Voltage(VDC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
12	0.5	NSW22564	MP-3011	$19.95	$17.70	$15.70

AC Output - Non Regulated - Single Voltage

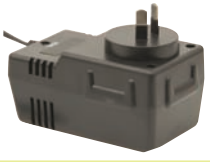
- (Regulated AC output in a plugpack is not currently feasible).

Voltage(AC) nom	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
9	1.0	N18616	MP-3027	$25.85	$23.35	$20.70
12	0.5	NSW21379	MP-3020	$18.95	$16.95	$14.95
12	1.0	NSW23268	MP-3026	$25.85	$23.35	$20.70
12	2.0	N17582	MP-3057	$29.95	$26.90	$23.70
15	1.5	N17582	MP-3059	$29.95	$26.90	$23.70
24*	1.0	N17582	MP-3032	$24.95	$22.35	$19.70

*Stripped and tinned termination

16VAC 1.25 Amp Alarm Supply

Designed for use with many house alarm panels. Supplied with three metres of cable for connection to alarm.



- Size: 55(W) x 90(H) x 60(D)mm.
- Terminated with bare ends.

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
16	1.25	N17582	MP-3021	$23.95	$21.35	$18.95

17VAC 1.25 Amp With Earth Connected

This has the earth pin wire connected. This is used for alarm panels that have an inbuilt dialler, as Austel require earthing due to it being connected to the telephone system.

- Terminated with bare ends.

Voltage(AC) nom	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
17	1.25	N17582	MP-3022	$24.95	$22.35	$19.70

2 x 11.5VAC at 1.25 Amp

Specifications	
Input	230 - 240VAC
Output	2 x 11.5V AC@1.25A
Dimensions	140(L) x 80(W) x 75(H)mm
Input lead lengths	1.8m
Output lead length	1.8m
Termination	3 Pin DIN connector

- Green LED power indicator

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
11.5 x 2	1.25	N16680	MP-3055	$24.95	$22.35	$19.70

12VAC 12.5 Amp

Enough to run 3 x 50W halogen, or 5 x 20W and one 50W or 7 x 20W.

- Transformer must be mounted inside.
- Output is via screw terminals.

Specifications	
Output	12.5 amps.
Dimenions	145(L) x 87(W) x 88(H)mm.
Includes	4 holes for easy screw mounting

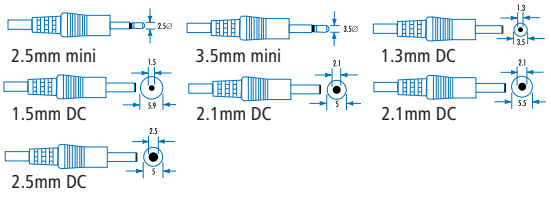
VAC	Amp	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
12	12.5	N16803	MP-3044	$49.95	$44.90	$39.90

TRANSFORMER TYPE AC ADAPTORS (CONTINUED)

Most adaptors are supplied with seven different plugs which suit most applications. All are Electricity Authority (SAA) approved.

Plugs Supplied with Adaptors

Reversible so you can have centre pin positive or negative by reversing the plug.



AC ADAPTOR PLUGS

Plugs To Suit AC Adaptors

Suits all our transformer type 240VAC adaptors shown on page opposite.

- Suits Sony.
- 1.7mm ID x 4.0mm OD x 12mm long.
- Blue dot.

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3690	$2.95	$2.60	$2.30

- 0.7mm ID x 2.35mm OD x 10mm long.
- Yellow dot.

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3691	$2.95	$2.60	$2.30

- 1.75mm ID x 4.75mm OD x 10mm long.
- Green dot.

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3692	$2.95	$2.60	$2.30

SPECIAL APPLICATION POWER PACKS

Universal Camcorder Power Supply/Charger

With 8 different connectors included to suit all the major brands, this universal camcorder power supply is an excellent choice to replace a damaged or lost original unit, or as a spare to take with you on the road. There is no need to fiddle around with setting the output voltage manually, since the unit automatically sets the output voltage depending on which connector you fit to it - simply match up the right connector and the rest is done for you. Also features a USB output for charging other gadgets such as MP3 players, and has an LED voltage display to ensure that you have matched the correct connector.

- Suits camcorder brands: Sony, Canon, Casio, Fuji, Kodak, Olympus, Nikon, Panasonic, JVC, Samsung

Specifications	
Maximum output power	70W
Output voltage range	5 - 8.4VDC
Input voltage	100-240VAC, 50-60Hz
Dimensions	110(L) x 52(W) x 25(H)mm

Approval Number	Cat.	Qty 1+	Qty 5+	Qty 10+
A/12702EA	MP-3325	$49.95	$44.90	$39.90

Luxeon® LED Power Pack

This 240 volt power pack simplifies the power requirements of Luxeon® LEDs.

An ideal power source for photographic light boxes or decorative applications.

- 6 LEDs for the 1 Watt.
- Dimensions: 102 x 21 x 43mm
- Lead lengths 1800mm on the wall socket side and 950mm Luxeon side

Unit	Voltage	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
1 Watt x 6	20V	350mA	MP-3272	$19.95	$17.70	$13.70

ALARM POWER SUPPLIES

16VAC 1.25 Amp Alarm Supply

Designed for use with many house alarm panels. Supplied with three metres of cable for connection to alarm.

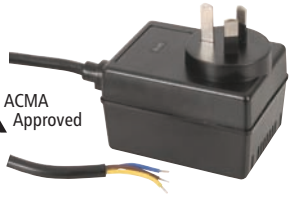
- Size: 55(W) x 90(H) x 60(D)mm
- Terminated with bare ends

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
16	1.25	N13057	MP-3021	$23.95	$21.35	$18.95

17VAC 1.25 Amp - Earth Connected

This has the earth pin wire connected. This is used for alarm panels that have an inbuilt dialler, as Austel require earthing due to it being connected to the telephone system.

ACMA Approved



- Terminated with bare ends

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
17	1.25	N13057	MP-3022	$24.95	$22.35	$19.70

CAMERA POWER SUPPLY

CCD Camera Power Supply

12VDC 500mA regulated plugpack ideal for CCD cameras.

- Terminates to a 2.1mm ID / 5.5mm OD DC plug, centre positive.

Voltage	Cat.	Qty 1+	Qty 5+	Qty 10+
12VDC	MP-3011	$19.95	$17.70	$15.70

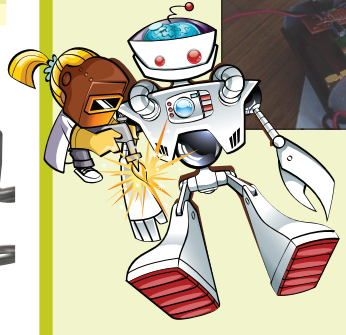
RELATED PRODUCT...

For full range of replacement Laptop Power supplies see page 402 in our computer section

Mooringwatch

Makers Name: Greg Churchill
Location: New South Wales

Designed specifically to monitor certain vital signs of unattended boats to inform their Skippers of their current live conditions. Of course, the same principle could be applied to your back shed, holiday home, wine cellar, cold room or refrigerated mobile vehicle or 'reefer'.



For more details scan the QR code or go to www.jaycar.com.au/makers

POWER & RENEWABLE ENERGY

Isolation & Stepdown Transformers

240 - 115V STEPDOWN TRANSFORMERS

TECH TIP

STEPDOWN TRANSFORMERS

A WORD ON ISOLATION. This means that:
The primary (240V) & secondary (115V) are totally electrically isolated (Dieletric isolation). This is the safest way of making a mains voltage conversion. We recommend this type of transformer whenever the application is medical or medically related or where the secondary equipment is to be operated in or near water or high moisture environments. Note the 240V earth is carried through to the 115V socket earth. As a further safety measure we now supply the ISOLATED units with resettable circuit breakers.

50 Watt - 240VAC to 115VAC

Includes overheat protection. If the unit gets too hot, the thermal fuse will open, then close after unit cools down, restoring operation. Two pin US socket on unit for 110V appliance and cord plug for 240V power.

- 50 Watts.
- This is not dielectrically isolated. (auto transformer type)
- Not for use in wet areas

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MF-1091	$49.95	$44.90	$39.90

Isolated Stepdown Transformers

Quality fully-enclosed stepdown transformer with fold up metal carry handles, approved 3 wire power cord & US style 2 pin 110 - 115V socket.

- Electrically isolated between primary and secondary
- Protective earth carried through to output
- Useable with precision electric & electronic appliances.
- Compact, excellent, safe & robust construction - steel case.
- DO NOT compare these to cheap, non isolated units. Your life is too precious!

Includes a resettable circuit breaker instead of fuse. Now you are not tempted to replace the fuse with a piece of coathanger wire.

120 Watt 240V - 115V Isolated

Specifications	
Rating	120VA (watts) 1.0 amp
Size	125(W) x 74(D) x 90(H)mm
Weight	2.4kgs

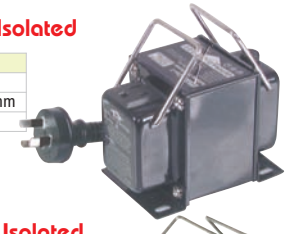
Cat. MF-1080

250 Watt 240V - 115V Isolated

Specifications	
Rating	250VA (watts) 2.2 amps
Size	133(W) x 81(D) x 98(H)mm
Weight	3.2kgs

Cat. MF-1082

500 Watt 240V - 115V Isolated



Specifications	
Rating	500VA (watts) 4.2 amps
Size	158(W) x 100(D) x 120(H)mm
Weight	6kgs

Cat. MF-1084

1000 Watt 240V - 115V Isolated

Specifications	
Rating	1000VA 8.6 amp
Size	195(L) x 120(W) x 140(H)mm
Weight	11kg

All other details are similar to our other units.

Due to heavy weight (11kgs) please check for freight costs.
Cat. MF-1086

1 YEAR WARRANTY

		Cat.	Qty 1+	Qty 2+	Qty 4+
120W	240 - 115V	MF-1080	$99.00	$88.95	$78.95
250W	240 - 115V	MF-1082	$129.00	$115.95	$102.95
500W	240 - 115V	MF-1084	$229.00	$209.00	$182.95
1000W	240 - 115V	MF-1086	$369.00	$335.00	$299.00

GARDEN LIGHTING TRANSFORMERS

Designed to power 12V and 24V garden lights from mains power. All output voltages are AC, not DC.

240V to 12VAC 105 Watt - Indoor

It will power 2 x 50W halogen globes or 5 x 20 watt. Ideal for 5 x 20W pathway lights, for example. Transformer must be used inside.

- 135(L) x 83(W) x 70(H)mm
- Output is via screw terminals
- 4 holes for easy screw mounting

Cat. MP-3043

240V to 12VAC 150 Watt - Indoor

Delivers 150W at 12VAC. Enough to run 3 x 50W halogen, or 5 x 20W and one 50W, or 7 x 20W

- Transformer must be mounted inside
- Output is via screw terminals
- Size 145(L) x 87(W) x 88(H)mm
- Includes 4 holes for easy screw mounting
- Safety approved number N16803
- Output 12.5Amps

Cat. MP-3044

240V to 24VAC 150 Watt - Indoor

All globes must be 24V rated

- Output 6.25 amps

Cat. MP-3045

1 YEAR WARRANTY

	Approval No.	Cat.	Qty 1+	Qty 5+	Qty 10+
12VAC 105W	N15653	MP-3043	$39.95	$35.90	$31.90
12VAC 150W	N16803	MP-3044	$49.95	$44.90	$39.90
240VAC 150W	N16803	MP-3045	$49.95	$44.90	$39.90

VARIAC

0-260VAC Variable Laboratory Autotransformer (Variac) - 500VA

The variable autotransformer (Variac is the trade name of a popular brand) is one of the most useful and efficient devices ever invented for the control of AC voltage and of voltage-dependent parameters such as current, power, temperature, light intensity, motor speed etc. It enables the AC input to a mains powered appliance to be easily varied from 0 to full line voltage (or greater). Encased in heavy-duty steel housing it also features on/off switch, output-voltage meter, mains-supply lead and standard 3-pin power output. A must for testing appliance performance under real (simulated) mains fluctuations.

NOT DIELECTRICALLY ISOLATED

- New and improved
- Now supplied with slow blow fuses for extra reliablity.

Specifications	
Rated power handling	500 VA (fused)
Input Voltage	240 VAC @ 50Hz
Output Voltage	0 ~ 260 VAC @ 50Hz
Dimensions	165(D) x 120(W) x 160(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3080	$229.00	$209.00	$182.95

LABORATORY POWER SUPPLIES

Fixed 13.8V Switchmode

High current general workshop power supplies for equipment component testing, etc. Internal cooling fans assist cooling at higher temperatures.

- Banana socket style binding posts
- LED power on indication.
- Rear mounted M205 fuse
- Ideal for 12V amateur transceivers, linear amps and high powered car stereo bench testing
- 12, 20 and 40A models

Specifications:	
Input voltage range:	190 - 240V AC
Output voltage range:	13.8V DC regulated
Output connections:	4mm Banana/Clamp Type
Recommended fuse:	M205 4 amp

POWERTECH

1 YEAR WARRANTY

Current (A)	Dimensions	Cat.	Qty 1+	Qty 3+	Qty 6+
12	170 x 160 x 85mm	MP-3079	$69.95	$62.95	$55.95
20	170 x 190 x 85mm	MP-3078	$99.95	$89.95	$79.95
40	190 x 260 x 105mm	MP-3089	$199.00	$178.95	$158.95

LABORATORY POWER SUPPLIES (CONTINUED)

Compact Switchmode

Compact size, high current, variable output and fan cooling make these the ideal power supply for your bench. They are protected against thermal overload and short circuit and will display a warning LED in the event of a fault condition. Current and voltage are displayed on separate backlit analogue meters.

Two models available:

Specifications:	MP-3800	MP-3802
Voltage output:	0 - 24VDC	0 - 16VDC
Current output:	Max 18A, 15A continuous	Max 30A, 25A continuous
Ripple:	<9mVp-p at rated load	<9mVp-p at rated load
Output regulation:	<1%	<1%
Dimensions:	148(W) x 162(D) x 62(H)mm	148(W) x 162(D) x 62(H)mm

1 YEAR WARRANTY

Voltage	Current (Max)	Cat.	Qty 1+	Qty 3+	Qty 6+
0 - 24VDC	18A	MP-3800	$149.00	$133.95	$118.95
0 - 16VDC	30A	MP-3802	$199.00	$178.95	$158.95

13.8V Laboratory Power Supplies

These good looking power supplies are available in four current capacities of 5, 10, 20, and 30 amp. They use proven technology and are designed to give long service life in workshop situations. The range features short circuit protection on the output and a fused input.

1 YEAR WARRANTY

Specifications	MP-3096	MP-3097	MP-3098	MP-3099
Output voltage	13.8VDC	13.8VDC	13.8VDC	13.8VDC
Rated output	5 amps	10 amps	20 Amps	30 amps
Surge current	7 amps	12 amps	22 Amps	32 amps
Voltage regulation	<5%	<5%	<5%	<5%
Ripple voltage	100mV	120mV	150mV	150mV

Current (A)	Cat.	Qty 1+	Qty 3+	Qty 6+
5	MP-3096	$99.95	$89.95	$79.95
10	MP-3097	$129.00	$115.95	$102.95
20	MP-3098	$189.00	$169.95	$150.95
30	MP-3099	$249.00	$225.00	$198.95

3V to 15VDC 40 Amp Regulated Switchmode

This high powered switch mode power supply will deliver up to 40 amps. It has a variable output voltage from 3 to 15VDC, or it can be fixed at 13.8VDC. The unit is suited to a variety of uses, especially DC powered equipment operating in a test or design environment and is ideal for car stereo work. The unit has overload, over temperature and over voltage protection. Output voltage and current are displayed on large, easily read seven segment LED displays and incorporates an internal cooling fan.

Incredibly light for output capacity, weighing only 3.5Kg

Specifications	
Variable output	3V DC to 15VDC
Fixed voltage mode	13.8V DC
Max. output current	40 Amps (continuous)
Ripple & noise	10mVRMS
Load regulation	230mV @ 0 - 100% load
Measures	220(W) x 110(H) x 300(L)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Current (A)	Cat.	Qty 1+	Qty 3+	Qty 6+
40	MP-3090	$299.00	$269.00	$239.00

1V TO 16VDC 0 to 40 Amp Regulated Switchmode

A high powered switchmode power supply that delivers up to 40 amps. It has a variable output voltage from 1 to 16VDC and variable current from 0 to 40A with a dual action (coarse/fine) microprocessor controlled rotary encoder tuning for smooth, precise and fast settings. Banana sockets on the front provide up to 5A output and heavy duty binding posts on the rear for larger current applications. A control mode switch on the rear allows the user to select between Normal, Preset (5V, 13.8 or 15VDC), Set (User-defined) modes for quick access to frequently used VI settings, or Remote Control. The remote control feature offers a wide range or operation possibilities for sophisticated applications to adjust the voltage, current and on/off control (Additional components are necessary, which are explained in the user manual). An intelligent fan control program checks the fan at power on and adapts the right speed to ensure a quiet and efficient operation, and the isolated ground construction allows parallel or series connection of additional power supplies.

- Switchmode
- High RFI immunity and excellent EMI
- Overload, short circuit, over temperature and tracking over voltage protected
- Incredibly light, weighing only 2.6kgs.

Specifications	
Variable output voltage	1VDC to 16VDC
Variable output current	0A to 40A
Max. output current	40 Amps (continuous)
Ripple & noise	5mV RMS
Load regulation	50mV @ 10 - 100% load.
Dimensions	200(W) x 90(H) x 215(L)mm.

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3094	$399.00	$359.00	$319.00

0 to 30VDC 0 to 3 Amp Regulated Variable

This precision, automatic transfer type power supply provides stable voltage and current with regulated output voltage. Output voltage is adjustable from 0 up to 30VDC in constant voltage mode and output current is adjustable from 0 to 3 Amps in constant current mode. The unit features an uncluttered control panel with LCD meter, voltage, and current adjustment knobs. Output connection is by screw down integral banana sockets. This versatile PSU can be utilised in many areas of scientific research, education, electronics, & electrical equipment repair.

- Backlit LCD

Specifications	MP-3086
Output voltage	0 - 32VDC
Output current	0 - 3 Amps
Ripple & noise	<1mVRMS
Dimensions	130(W) x 160(H) x 320(D)mm
Weight	6.5kg

Stock may vary from pic

1 YEAR WARRANTY

Current (A)	Cat.	Qty 1+	Qty 3+	Qty 6+
0-3	MP-3086	$199.00	$178.95	$158.95

0 to 32VDC Dual Output, Dual Tracking

This automatic constant-voltage/constant-current transfer type power supply is effectively two 0-32VDC 3 Amp power supplies in one case. The two outputs can be operated independently, connected in parallel , or series for multiple output currents and voltages. Coarse and fine voltage controls are provided on both outputs, along with current limit control. Both outputs have independent digital voltage and current meters.

- Displays are backlit and extremely easy to read.

Specifications	MP-3087
Output voltage	2 x 0 - 32VDC
Output current	0 - 3 Amps (x 2)
Ripple and noise	<1mVRMS
Load regulation	10mV max.
Dimensions	185(H) x 260(W) x 400(D)mm
Weight	10kg approx

1 YEAR WARRANTY

Current (A)	Cat.	Qty 1+	Qty 3+	Qty 6+
0-3	MP-3087	$349.00	$315.00	$279.00

Open Frame Switchmode Power Supplies

POWERTECH SWITCHMODE POWER SUPPLIES

These units represent outstanding value for money and carry the same warranties and factory backup as the well-known brand-name products sold by us & others in the trade. You can confidently design these products into your production, as we will be definitely stocking these products for years to come. Indeed we will be expanding the range over time.

POWERTECH

Summary of features:
- High efficiency and reliability
- Broad input voltage tolerances
- IEC Standards Compliant
- Short circuit, overload/overvoltage protected
- Soft-start • Low ripple DC
- Multi-country Electrical Authority approvals

2 YEAR WARRANTY

25 Watt - 12V & 24V

- 12 and 24 volt models available
- DIN rail bracket to suit use MP-3150
- 110/240V switch
- Weight: 370g

Specifications	MP-3160	MP-3162
Output voltage	12VDC	24VDC
Tolerance	10% +/-	10% +/-
Ripple & noise	100mV	100mV
Output current	2.1A	1.1A
Efficiency	76%	77%
Input frequency	47-63Hz	47-63Hz
Cold start inrush current	30A	30A
Weight	370g	370g
Dimensions (LxWxH)mm	99x97x35	99x97x35

	Cat.	Qty 1+	Qty 3+	Qty 6+
12 Volt	MP-3160	$44.95	$40.45	$35.90
24 Volt	MP-3162	$44.95	$40.45	$35.90

40 Watt - 12V & 24V

- 12 and 24 volt models available
- DIN rail bracket to suit use MP-3150
- 110/240V switch
- Weight: 450g

Specifications	MP-3165	MP-3167
Output voltage	12VDC	24VDC
Tolerance	10% +/-	10% +/-
Ripple & noise	100mV	100mV
Output current	3.5A	1.8A
Efficiency	76%	76%
Input frequency	47-63Hz	47-63Hz
Cold start inrush current	60A	60A
Weight	450g	450g
Dimensions (LxWxH)mm	129x98x38	129x98x38

	Cat.	Qty 1+	Qty 3+	Qty 6+
12 Volt	MP-3165	$54.95	$49.45	$43.90
24 Volt	MP-3167	$54.95	$49.45	$43.90

60 Watt - 12V & 24V

- 12 and 24 volt models available
- DIN rail bracket to suit use MP-3152
- Weight: 500g

Specifications	MP-3170	MP-3172
Output voltage	12VDC	24VDC
Tolerance	10% +/-	10% +/-
Ripple & noise	120mV	150mV
Output current	5A	2.5A
Efficiency	76%	79%
Input frequency	47-63Hz	47-63Hz
Cold start inrush current	60A	60A
Weight	500g	500g
Dimensions (LxWxH)mm	159x97x38	159x97x38

	Cat.	Qty 1+	Qty 3+	Qty 6+
12 Volt	MP-3170	$59.95	$53.95	$47.90
24 Volt	MP-3172	$59.95	$53.95	$47.90

60 Watt 5V/4A 12V/3A

- Provides 5 and 12 volts at the same time. Note: Total output must not exceed 60W
- Weight: 500g
- DIN rail bracket to suit use MP-3152

Specifications	
Output voltage	5VDC + 12VDC
Tolerance	10% +/-
Ripple & noise	75mV + 150mV
Output current	4A (5V) + 3A(12V)
Efficiency	73%
Input frequency	47-63Hz
Cold start inrush current	60A
Weight	500g
Dimensions (LxWxH)mm	159x97x38

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3174	$64.95	$58.50	$51.95

100 Watt - 12V

- 12 volt output at 100 Watts.
- 110/240V switch
- Weight: 650g
- DIN rail bracket to suit use MP-3152

Specifications	
Output voltage	12VDC
Tolerance	10% +/-
Ripple & noise	100mV
Output current	8.5A
Efficiency	81%
Input frequency	47-63Hz
Cold start inrush current	40A
Weight	650g
Dimensions (LxWxH)mm	199x98x50

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3175	$69.95	$62.95	$55.95

100 Watt Open Frame - 24V

- Open Frame type. Auto switch input voltage.
- 110/240V switch

NEW LOWER PRICE

Specifications	
Output voltage	24VDC
Tolerance	10% +/-
Ripple & noise	100mV
Output current	4.5A
Efficiency	84%
Input frequency	47-63Hz
Cold start inrush current	40A
Weight	450g
Dimensions (LxWxH)mm	222x62x33

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3179	$49.95	$44.90	$39.90

120 Watt - 5V & 24V Dual Output

- Provides 5 and 24 volts at the same time. Note: Total output must not exceed 120W
- Automatic Input Voltage Detect.
- DIN rail bracket to suit use MP-3152

Specifications	
Output voltage	5VDC + 24VDC
Tolerance	10% +/-
Ripple & noise	60mV + 150mV
Output current	6A + 4A
Efficiency	80%
Input frequency	47-63Hz
Cold start inrush current	40A
Weight	-
Dimensions (LxWxH)mm	199x110x50

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3180	$99.95	$89.95	$79.95

150 Watt - 12V, 15V & 24V

- 12, 15 and 24 volt models available.
- Automatic input voltage detection.
- Weight: 650g
- DIN rail bracket to suit use MP-3152

Specifications	MP-3185	MP-3187	MP-3189
Output voltage	12VDC	15VDC	24VDC
Tolerance	10% +/-	10% +/-	10% +/-
Ripple & noise	180mV	180mV	240mV
Output current	12.5A	10A	6.5A
Efficiency	82%	84%	85%
Input frequency	47-63Hz	47-63Hz	47-63Hz
Cold start inrush current	60A	60A	60A
Weight	650g	650g	650g
Dimensions (LxWxH)mm	199x110x50	199x110x50	199x110x50

	Cat.	Qty 1+	Qty 3+	Qty 6+
12 Volt	MP-3185	$94.95	$85.50	$75.95
15 Volt	MP-3187	$94.95	$85.50	$75.95
24 Volt	MP-3189	$94.95	$85.50	$75.95

240 Watt - 12V - 18 Amp

- Delivers 18 amps at 12 Volts.
- Automatic input voltage detection.
- Inbuilt thermally controlled fan for cooling.
- Weight: 1.1kg

Specifications	
Output voltage	12VDC
Tolerance	10% +/-
Ripple & noise	150mV
Output current	18A
Efficiency	82%
Input frequency	47-63Hz
Cold start inrush current	36A
Weight	1.1kg
Dimensions (LxWxH)mm	205x93x65

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3250	$169.00	$151.95	$134.95

DIN RAIL POWER SUPPLIES (CONTINUED)

120 Watt Industrial DIN Rail Switchmode Power Supplies

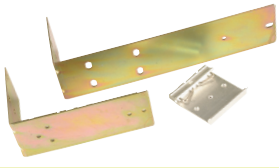
2 YEAR WARRANTY

Specifications	MP-3195	MP-3196	MP-3197
Input voltage	110/240VAC (switch), 248-370VDC	110/240VAC (switch), 248-370VDC	110/240VAC (switch), 248-370VDC
Input frequency	47-63Hz	47-63Hz	47-63Hz
Output voltage	12VDC	24VDC	48VDC
Line regulation	1% +/-	1% +/-	1% +/-
Ripple & noise	80mV	80mV	100mV
Output current	10A	5A	2.5A
Efficiency	80%	84%	85%
Cold start inrush current	40A @ 230V	40A @ 230V	40A @ 230V
Dimensions	65x125x100mm	65x125x100mm	65x125x100mm

Voltage (V)	Cat.	Qty 1+	Qty 3+	Qty 6+
12	MP-3195	$149.00	$133.95	$118.95
24	MP-3196	$149.00	$133.95	$118.95
48	MP-3197	$149.00	$133.95	$118.95

DIN Rail Brackets

DIN Rail brackets to suit switchmode DIN andenclosed frame power supplies.
MP-3150 suits 25 & 40 watt models
MP-3152 suits 60, 100, 120, 150 watt models
MP-3154 Clip is required for the brackets above, which is then attached onto the DIN rail.
Note: M3 and M4 screws are required.

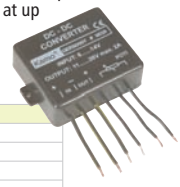


Type	Cat.	Qty 1+	Qty 3+	Qty 6+
1 DIN	MP-3150	$5.95	$5.25	$4.75
2 DIN	MP-3152	$6.95	$6.25	$5.50
Clip	MP-3154	$5.95	$5.25	$4.75

DC - DC CONVERTERS

DC to DC Voltage Step-up Converter

This compact DC to DC converter will double the voltage applied to its input terminals and produce an output voltage in the range of 11 to 26 volts DC at up to 2 amps. This allows you to operate 12 volt car radios, CB radios, amplifiers etc. in a 6 volt car or motor cycle etc. A potentiometer can be added to 'fine tune' the output voltages as required.



Specifications	
Input Voltage	6 to 14VDC
Output Voltage	11 to 26VDC
Output Current	2 amps Max. (Depends on output voltage)
Dimensions	82(W) x 23(H) x 60(D)mm

Current	Cat.	Qty 1+	Qty 3+	Qty 6+
2A	AA-0264	$44.95	$40.45	$35.90

24VAC/DC to 12VDC 300mA Adaptor

This simple looking device consists of a tiny 40 x 25 x 19mm module with 300mm leads connected to each end. On the input side there is a 22AWG terminal block for connecting a 24V AC or DC source. On the output side, there is a 2.1mm DC plug where you have a regulated 12VDC supply, at up to 300mA. The AC input can be 20 - 28V, and the DC input can be 16 - 30V.

Current	Cat.	Qty 1+	Qty 3+	Qty 6+
300mA	MP-3069	$22.95	$20.35	$18.35

240VAC/DC to 12VDC 1A Converter

Trying to get power for CCTV and security cameras over a long run without losses is challenging to say the least. Solve the problem quickly and easily by sending 24VAC down the long run, then converting it to 12VDC when you get it where you need it. Connection is by screw terminals.

Specifications	
Input	20 - 28VAC, 16 - 30VDC
Output	12VDC regulated
Output current	1A max
Dimensions	90(L) x 25(W) x 25(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3350	$34.95	$31.45	$29.90

24VDC to 12VDC 1.1A Converter

All modules in this column reduce 24V truck or marine DC systems to enable car stereos, CBs, indeed all standard 12V products to work safely within the higher voltage environment. Simply establish how much power your 12V product needs and choose the appropriate reducer. For very low current applications, see MP-3069 above.

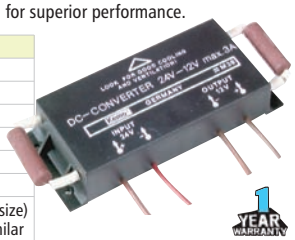
Specifications	
Input voltage	24 - 30 VDC
Output voltage	12VDC approx
Maximum load	1.1A
Dimensions	60 x 55 x 20 mm

1 YEAR WARRANTY

Current	Cat.	Qty 1+	Qty 3+	Qty 6+
1.1A	AA-0265	$22.95	$20.35	$18.35

24VDC to 12VDC 3A Converter

Many trucks and boats use 24V systems. These converters will allow you to run a reasonably sized 12V car-stereo or other devices from a 24V supply. Heatsink (not included) should be used for superior performance.



Specifications	
Short-circuit protection	
Thermal cutout	
Input voltage	24 to 26 VDC
Output voltage	12VDC
Maximum load	3A
Dimensions	135 x 50 x 24 mm
Heatsink	50 x 100 x 30 mm (rec. size) use Cat. HH-8572 or similar

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0266	$29.95	$26.90	$23.70

24VDC to 12VDC 5A Converter with USB

For those with a 24V vehicle such as a truck or bus, finding accessories like chargers and power supplies that run off 24V can be near impossible. This handy little device solves that problem by converting 24VDC to 12VDC so that you can use normal car accessories designed for 12V vehicles. Connection couldn't be easier, with a cigarette lighter plug for 24V input and a cigarette lighter socket for the 12V output. Maximum rated current is 5A, which is enough for most modest car chargers and power supplies and as a bonus the unit also has a USB output with 1A current to charge your mobile phone or other USB device.

Specifications	
Input voltage	12 - 30VDC
Output voltage	12VDC
Max, output current	5A
Continuous output current	4A
Efficiency	85%
Dimensions	100(L) x 76(W) x 38(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3354	$49.95	$44.90	$39.90

24VDC to 12VDC 10A Converter

DC to DC converters are useful for running 12V devices from a 24V supply in a truck or bus. These have switchmode technology for light weight and compact design and are rated for 10A. Input and output is via cigarette lighter plug and socket.

Specifications	
Input voltage	20 - 30VDC
Output voltage	13.8VDC
Max, output current	10A
Continuous output current	7A
Efficiency	85%
Dimensions	160(L) x 48(W) x 48(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3352	$69.95	$62.95	$55.95

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Converters & Power Adaptors

DC - DC CONVERTERS (CONTINUED)

24VDC to 12VDC Converters

DC to DC converters are useful for running 12V devices from a 24V supply in a truck or bus. These have switchmode technology for light weight and compact design, and come in a range of current ratings up to 40 amps.

Three models available:

MP-3061

MP-3063

MP-3066

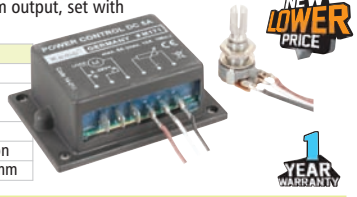
Specifications	MP-3061	MP-3063	MP-3066
Current	10 Amp	20 Amp	40 Amp
Input voltage	20 - 30VDC	20 - 30VDC	20 - 30VDC
Output voltage	13.8VDC	13.8VDC	13.8VDC
Max. output current	10A	20A	40A
Continuous output current	7A	15A	30A
Efficiency	85%	85%	85%
Dimensions L x W x Hmm	160 x 48 x 48	210 x 90 x 50	200 x 192 x 70

Current	Cat.	Qty 1+	Qty 3+	Qty 6+
10A	MP-3061	$59.95	$53.95	$47.90
20A	MP-3063	$99.00	$88.95	$78.95
40A	MP-3066	$149.00	$133.95	$118.95

MOTOR CONTROLLERS

Motor Speed Controller

Control DC loads such as motors, lamps etc. Pulse Width Modulation (PWM) also allows electric motors to start smoothly at low RPM. Control range is approximately 5 % to 95 % of maximum output, set with a 47k potentiometer.



Specifications	
Operating voltage	9 - 28 VDC
Max. current carrying capacity	10A with heatsink, 5A without heatsink
Control range	< 5% to > 95%
Control mode.	pulse width modulation
Dimensions	86(L) x 60(W) x 33(H)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
AA-0349	$49.95	$44.90	$39.90

12VDC 8A Dimmer/Motor Speed Controller

DC speed controllers are ideal for slowing down pumps and motors or dimming lights but commonly use resistance circuits and are very inefficient. The pulse width modulation (PWM) used in this controller allows you to vary the output from 0 to 100% while maintaining a very high efficiency. When used on motors this ensures full torque is available at very low speed and the motor won't shudder at start-up. Operates on any 12VDC system and capable of controlling devices rated at up to 8 amps. The internal circuitry is fully potted and the control potentiometer is splash proof making this suitable for marine environments and other harsh conditions.

- Dimensions: 97(L) x 46(W) x 47(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3209	$27.95	$24.95	$22.35

POWER SUPPLIES

Switchmode Power Supplies - Mains to Cigarette Lighter Socket

A handy solution for powering 12V equipment such as car coolers and camping fridges from a mains AC power source. Supplied with a 1.5m output lead with cigarette socket output, making connection simple and easy.

12VDC 7.5A
Input voltage: 240VAC
Dimensions: 157(L) x 90(W) x 57(H)mm
MP-3575

12VDC 12.5A
Input voltage: 240VAC
Dimensions: 200(L) x 100(W) x 65(H)mm
MP-3573

Current	Cat.	Qty 1+	Qty 5+	Qty 10+
7.5A	MP-3575	$39.95	$35.90	$31.90
12.5A	MP-3573	$89.95	$80.95	$71.95

CAR POWER SUPPLIES

1.5A Car Power Adaptor

Use your car's cigarette lighter socket to power or charge a variety of portable electronic devices such as mobile phones, personal audio players, handheld video game consoles and PDAs. Choose from 6 different DC voltages and 6 different adaptor tips.

Specifications	
Input voltage	12VDC
Output voltage	3, 4.5, 6, 7.5, 9 or 12VDC
Output current	1.5A
Dimension	99(L) x 41(W) x 31(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3677	$19.95	$17.70	$15.70

3A Car Power Adaptor with USB Outlet

Select a DC voltage and adaptor tip combination to power or charge a wide range of consumer electronics goods such as personal audio players, digital cameras, handheld gaming consoles, mobile phones, PDAs, PSP, etc. Many modern devices will also charge via the USB outlet.

Specifications	
Input voltage	12VDC
Output voltage	3, 4.5, 5, 6, 7.5, 9.5, 12VDC
Output current	3A
USB output	5VDC, 1A
Power Indicator	LED
Dimensions	80(L) x 76.2(W) x 33(D)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3671	$29.95	$26.90	$23.70

5A Regulated 12VDC Car Power Adaptor

This adaptor will power MP3 players, games, CD players, appliances or anything else that requires 5 - 12VDC at up to 5A. It's also fuse protected & includes four plug adaptors to suit most popular devices.

- Four plug adaptors
- Selectable voltage: 5, 6, 9 & 12VDC
- Fuse protected
- Lead length: 1400mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3478	$39.95	$35.90	$31.90

3A - Digital Car Power Adaptor with LCD

Offers 7 different DC voltages with 3A continuous output, plus a USB charging output suitable for the latest smart phones and i-gadgets. The microprocessor controlled design provides accurate digital read outs of vehicle's battery voltage, selected output voltage and power used by the load. The vehicle battery is protected against over discharge by a low voltage cut out feature. LCD features selectable backlight colours.

- Input voltage: 12V or 24V battery systems
- Output voltage: 1.5/3/4.5/5/6/7.5/9/12VDC (12VDC output only available with 24V input)
- Output current: 3A max, (USB: 500mA max)
- Dimensions: 98(L) x 57(W) x 17(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3673	$59.95	$53.95	$47.90

6A Regulated 12VDC Car/Truck Power Adaptor

Simply connect to a cigarette lighter socket in your car or truck for a regulated 12VDC output at up to 6 amps, more than enough for a portable DVD player, TV, LCD screen or any other 12 volt device. You can also use it to run a DVD player from your car's 12 volt supply, as many portable DVD players will only run on a regulated 12 volt supply and will self-destruct if connected to the typical 13.8 volts of a car's electrical system.

- Supplied with 7 DC connectors

Specifications	
Input	11-28VDC
Output	Regulated 12VDC @ 6A
Lead length	Input - 450mm output - 1400mm
Case size	138(L) x 60(W) x 32(H)mm

Cat.	Qty 1+	Qty 3+	Qty 6+
MP-3064	$59.95	$53.95	$47.90

POWER SUPPLY ACCESSORIES

Alligator Clip Lead Set for Powertech Plugpacks

2 pin oval lead - 2 x alligator clips on 200mm length cable, suitable for POWERTECH plug packs.

Cat.	Qty 1+	Qty 5+	Qty 10+
PS-4165	$3.95	$3.45	$3.15

In-line Low Voltage Switch

Simply connect your plug pack adaptor into this handy in-line switch to provide quick and easy on/off control. Much easier than unplugging the connector or reaching for the power point when you want to switch your device on or off.

- Fitted with 2.1mm DC plug & socket and rated at 24VDC at 2 amps.

Cat.	Qty 1+	Qty 10+	Qty 25+
SK-0998	$7.95	$6.95	$6.25

7 Plug DC Wiring Kit

Configure your own plugpacks or wire to projects to give standard DC output plugs. Includes the same socket and 7 DC plugs as supplied with our range of switchmode AC plugpack adaptors.

- 1.8m long.

Cat.	Qty 1+	Qty 3+	Qty 6+
PP-1980	$6.95	$6.25	$5.50

RELATED PRODUCT...
See our full range of Smartphone, iPhone®, iPod® & iPad® Chargers & Accessories on pages 389 to 390

MAINS CHARGERS

USB Mini Power Adaptor - 1A

A simple solution to your USB power needs in a conveniently small package. With 5VDC output at 1.0A, this little AC power adaptor has enough grunt to charge pretty much any mobile phone or USB device, including all iPods® and iPhone® models. Also features worldwide voltage input making it great for travellers. Just connect your USB charging cable (not included) and away you go.

Specifications	
USB	Socket A
Input voltage	100-240VAC, 50/60Hz
Output	5VDC, 1.0A
Dimensions	40(dia) x 27(L)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
1A	MP-3455	$14.95	$13.35	$11.70

Mains Power Adaptor for iPad®/iPhone®/iPod® - 2.1A

Mains power adaptor suitable for charging Apple® products including iPad®

- Includes 1m USB charging/sync cable
- Input: 240VAC 50Hz
- Output: 5VDC, 2.1A

	Cat.	Qty 1+	Qty 5+	Qty 10+
2.1A	MP-3457	$19.95	$17.70	$15.70

RELATED PRODUCT...
See our full range of In-Car & Cigarette Lighter Chargers and Adaptors on pages 240 to 241

Mains Adaptor with 2 x USB Ports

Charge USB devices without wasting a powerpoint. Simply leave it plugged in and still have access for using a mains appliance. Ideal for the business traveller - ever seen a hotel room with too many power points?

- Size: 88(H) x 44(W) x 33(D)mm

Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
SAA110634EA	PP-4038	$12.95	$11.35	$10.35

USB Mains Power Adaptor - 2.1A

Charges an array of mobile phones, Tablets, and MP3 players with ease. Output has 2.1A of current so will comfortably charge a Smartphone, iPad® or other tablet at full speed. Compact design with worldwide voltage input makes it ideal for travellers.

Specifications	
Input	100-240V - 60/50HZ 260mA
Output	5VDC, 2.1A
Dimensions	8(W) x 54(L) x 35(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
2.1A	MP-3456	$19.95	$17.70	$15.70

Dual USB Mains Power Adaptor - 2 x 2.1A

An ultra fast USB charger complete with 2 x USB sockets with 2.1A each, capable of charging virtually any mobile phone or USB device including all iPad®, iPhone® and iPod® models. Features worldwide voltage input making it great for travellers. Outputs 2100mA for each socket allowing it to charge 2 devices simultaneously. The perfect mobile device charging solution for your home and travel needs.

Specifications	
Input voltage	100-240VAC, 50/60Hz
Output	5VDC, 2.1A + 2.1A (4.2A total)
Dimensions	60(W) x 60(H) x 30(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
2 x 2.1A	MP-3459	$24.95	$22.35	$19.70

Mains Travel Adaptors for USB, iPod® & MP3 Players

Handy for charging USB devices without needing to connect the device to your computer. Switchmode adaptor with 5VDC output and 1A max current. USB cable not included as most users will already have this but we have a range of USB cables including a model to suit the iPod®. Suitable for iPhone® and latest generation iPod® products including the iPhone®4.

- Includes 4 interchangeable adaptors for Australia, US, UK and Europe power outlets.

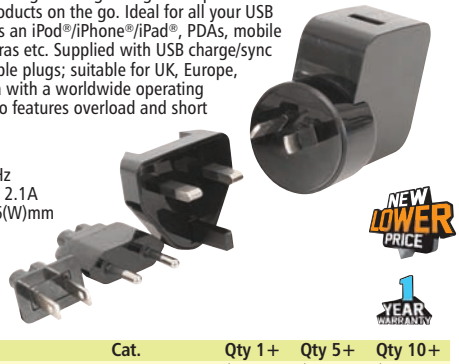
Specifications	
Input	100-240VAC 50/60Hz
Output voltage	5VDC
Output current	1A max.
Size	68(L) x 55(W) x 52(H)mm

	Approval No.	Cat.	Qty 1+	Qty 5+	Qty 10+
1A	V090116	MP-3452	$19.95	$17.70	$15.70

USB Mains Travel Adaptor for iPad®/iPhone®/iPod®

This compact USB outlet charger is a lightweight and practical unit for charging your Apple® products on the go. Ideal for all your USB powered gadgets such as an iPod®/iPhone®/iPad®, PDAs, mobile phones and digital cameras etc. Supplied with USB charge/sync lead and 4 interchangeable plugs; suitable for UK, Europe, USA, China and Australia with a worldwide operating voltage of 100-240V. Also features overload and short circuit protection.

- Input voltage: 100V-240VAC , 50/60Hz
- Output voltage: 5VDC, 2.1A
- Size: 53(L) x 53(H) x 26(W)mm



	Cat.	Qty 1+	Qty 5+	Qty 10+
2.1A	MP-3458	$19.95	$17.70	$15.70

Inverters

INVERTERS - QUICK REFERENCE GUIDE

Wattage	Input	Waveshape	Surge	Input Connection	Page	Cat.
150W	12V	Modified Sine	450W	Lighter Plug	306	MI-5127
150W	12V	Modified Sine	450W	Lighter Plug	306	MI-5102
180W	12V	Pure Sine	360W	Lighter Plug	309	MI-5700
300W	12V	Modified Sine	1000W	Screw Terminals	307	MI-5104
360W	12V	Pure Sine	720W	Heavy Duty Screw-down Terminals	309	MI-5702
400W	12V	Modified Sine	1200W	Screw Terminals	307	MI-5106
400W	24V	Modified Sine	1200W	Screw Terminals	307	MI-5107
600W	12V	Modified Sine	1500W	Bolt Terminals	307	MI-5108
800W	12V	Pure Sine	1600W	Heavy Duty Screw-down Terminals	309	MI-5704
800W	12V	Modified Sine	2000W	Bolt Terminals	308	MI-5110
1000W	12V	Modified Sine	2500W	Bolt Terminals	308	MI-5112
1100W	12V	Pure Sine	2200W	Heavy Duty Screw-down Terminals	310	MI-5706
1500W	12V	Modified Sine	3500W	Bolt Terminals	308	MI-5114
1500W	12V	Pure Sine	3000W	Heavy Duty Screw-down Terminals	310	MI-5708
2000W	12V	Pure Sine	4000W	Heavy Duty Screw-down Terminals	310	MI-5710
2000W	24V	Modified Sine	4500W	Bolt Terminals	308	MI-5116
2000W	24V	Pure Sine	4000W	Heavy Duty Screw-down Terminals	310	MI-5712

INVERTERS - MODIFIED SINE WAVE RANGE

Getting 230VAC to run small electrical appliances from your cars battery is easy with our range of general purpose inverters. We have models suitable for charging your laptop in the bush to running a microwave in a motor home. They have fan assisted cooling and electrical isolation for safety.

TECH TIP!

IMPORTANT NOTE
Do not regard the power point of an inverter as identical to a household power point. There are subtle differences. Please read the notice below.

150W Can-Sized Power Inverter with 2.1A USB Output

Fits in the car's cup holder, plugs into the cigarette lighter socket and outputs 230VAC to power a variety of 230VAC equipment from a battery charger to a laptop power supply. Also features a USB port with 2.1A output, allowing you to quickly charge many modern electronics gadgets, including power-hungry Tablets. It also features electrical isolation to prevent sudden mains voltage at your cigarette lighter socket.

- Powered by cigarette lighter socket adaptor
- Modified sine wave
- USB Output: 5VDC 2.1A
- Dimensions: 165(L) x 60(Dia.)mm

USB Port

NEW 2013

	Cat.	Qty 1+	Qty 3+	Qty 6+
150W 12VDC	MI-5127	$44.95	$40.45	$35.90

1 YEAR WARRANTY

INVERTERS - MODIFIED SINE WAVE RANGE - STANDARD RANGE

150 Watt (450 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	150W
Output power - surge	450W
Standby current	< 300mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	N/A
Input connection	Cigarette lighter plug
Weight	0.85kg
Dimensions (L x W x H)	165 x 91 x 58

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	20A max

Suits laptop computers, recharging power tools or batteries, lamps and fluorescents up to 150W, fax machines etc.

	Cat.	Qty 1+	Qty 3+	Qty 6+
150W 12VDC	MI-5102	$49.95	$44.90	$39.90

1 YEAR WARRANTY

POWERTECH

TECH TIP

WHEN TO AND WHEN NOT TO - USE INVERTERS

We DO NOT recommend that you use these products to operate the following:
• FRIDGES • AIR COMPRESSORS • AIR CONDITIONERS

An inverter is a device which converts 12 or 24VDC into 240VAC. The 240VAC generated is as lethal as the power in homes, and should be treated with the same respect. Inverters can be easily damaged, and connecting the input voltage terminals the wrong way around on the battery can damage the unit - be careful!!

Appliances most suitable for connection include:
- **most power tools**
- **most TVs**
- **most computers**
- **most audio equipment**
- **lights**
- **video recorders / players**
- **fax machines**

Fluorescent lights can give a highly inductive load on start up which can damage inverters.

Appliances not suitable include:
- **electric blankets**
- **hair dryers**
- **radiators**
- **toasters**
- **irons**
- **heavy power tools (large angle grinders, circular saws etc)**

Inverters will generally drive inductive loads such as electric motors, but only if the startup current is not high. Generally high startup current situations are when the motor is permanently coupled to a load such as a refrigeration or airconditioner compressor (Imagine the compressor at rest just before top dead centre you can easily realise the start up load on the motor!). Many other motors such as in drills, small angle grinders, buffers etc start up under virtually no load and this is usually OK for the inverter provided the tool is within the inverter rating. It needs to be pointed out that one of the major differences between a domestic power point and inverter is that the source impedance of a power point is very low compared to the inverter. This is why inverters have trouble with appliances with high start up currents and a domestic power point does not. Another thing that must be remembered is the special case of fluorescent lights with ballast chokes in them (by far the most common type).

Manufacturers of fluoro lights assume that they are just going to be installed to a normal 240V 50Hz sine wave supply. They are required to supply a product that does not overly distort the mains waveform. They generally comply with this by installing a, say, 3.3µF non polarised capacitor accross the mains/neutral supply inside the housing of the lamp fitting. This is called a power factor correction capacitor. This seems to work OK for a sine wave supply from a low source impedance.
When you drive such a device with modified sine wave 240V power, different things start to happen. The power factor correction capacitor presents a much greater load to a modified sine wave signal (which is a complex collection of high and low frequencies) than it would if it was a sine wave. The bottom line is to reduce this capacitor to about 0.47µF or take it out completely. Inverters are generally OK then. It is also possible for an inverter to be damaged by the surges in current generated when using standard flourescent starters. This can be prevented by replacing the starter with an electronic starter.

INVERTERS - MODIFIED SINE WAVE RANGE - STANDARD RANGE (CONTINUED)

300 Watt (1000 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	300W
Output power - surge	1000W
Standby current	< 300mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Cigarette lighter or aligator clamps
Weight	1.1kg
Dimensions (L x W x H)	190 x 91 x 58

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	35A max

POWERTECH

Leads supplied with unit.

Suits laptop computers, recharging power tools or batteries, lamps and fluorescent lights up to 300W, portable TV sets.

	Cat.	Qty 1+	Qty 3+	Qty 6+
300W 12VDC	MI-5104	$69.95	$62.95	$55.95

1 YEAR WARRANTY

400 Watt (1200 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	400W
Output power - surge	1200W
Standby current	< 300mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Screw terminals and aligator clamps
Weight	1.2kg
Dimensions (L x W x H)	190 x 91 x 52

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	50A max

POWERTECH

Leads supplied with unit.

Suits laptop computers, recharging power tools or batteries, lamps and fluorescents up to 400W, 54cm televisions, 100W Halogen worklight, electric fan, fax machines etc.

	Cat.	Qty 1+	Qty 3+	Qty 6+
400W 12VDC	MI-5106	$89.00	$79.95	$70.95

1 YEAR WARRANTY

400 Watt (1200 Watt Surge) 24VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	400W
Output power - surge	1200W
Standby current	<300mA
Input voltage	24VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB Output	-
Input connection	Screw terminals and aligator clamps
Weight	1.2kg
Dimensions (L x W x H)	190 x 91 x 52

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	21VDC+/- 1V
Low battery shutdown	20VDC+/- 1V
Battery high shutdown	30VDC+/- 1V
External fusing	25A max

POWERTECH

Lead supplied with unit.

TECH TIP!
24V IDEAL FOR TRUCKS

Suits laptop computers, recharging power tools or batteries, lamps and fluorescents up to 400W, 54cm televisions, 100W Halogen worklight, electric fan, fax machines etc.

	Cat.	Qty 1+	Qty 3+	Qty 6+
400W 24VDC	MI-5107	$89.00	$79.95	$70.95

1 YEAR WARRANTY

600 Watt (1500 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	600W
Output power - surge	1500W
Standby current	< 300mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	1M lead with eye terminal
Weight	1.7kg
Dimensions (L x W x H)	242 x 91 x 58

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	80A max

POWERTECH

Lead supplied with unit.

Suits laptop computers, recharging power tools or batteries, lamps and fluorescents up to 600W, 68cm televisions, power drills, blenders etc.

	Cat.	Qty 1+	Qty 3+	Qty 6+
600W 12VDC	MI-5108	$149.00	$133.95	$118.95

1 YEAR WARRANTY

TECH TIP

WHAT TO BUY - SINE WAVE OR MODIFIED SINE WAVE?

"Modified" sine wave is a crude approximation of the 240V waveform, with square wave components in it. Many appliances are OK with this. Typically these are :

- **Most TVs, VCRs CD/DVD players**
- **Fax machines**
- **Computers (most)**
- **Most switchmode power supplies**
- **Small power tools**
- **Some audio equipment**
- **All incandescent lighting**

Sine wave is closer to mains and those inverters are much more efficient. Most appliances work OK with the lower cost modified sine.

Sine wave inverters are best for:

- **Electric clocks**
- **Electronic weighing machines**
- **All other TVs**
- **Sensitive equipment**
- **Mains powered PA equipment**
- **Plug pack powered equipment**
- **Anything where you want to get the most out of a battery charge**

Inverters

MODIFIED SINE WAVE RANGE (CONTINUED)

800 Watt (2000 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	800W
Output power - surge	2000W
Standby current	< 800mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Bolt eye terminals
Weight	<4.0kg
Dimensions (L x W x H)	310 x 205 x 75

Circuit Protection	
Thermal shutdown/alarm	60°C +/- 0.5°5C (Automatic Recovery)
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	15.5V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	105A max

Suits lamps and fluorescents up to 800W, 68cm televisions and VCRs, power drills, blenders, belt sanders etc.

Rear View

Lead supplied with unit.

	Cat.	Qty 1+	Qty 3+	Qty 6+
800W 12VDC	MI-5110	$189.00	$169.95	$150.95

1 YEAR WARRANTY

POWERTECH

1000 Watt (2500 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	1000W
Output power - surge	2500W
Standby current	< 800mA
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Bolt eye terminals
Weight	5.0kg
Dimensions (L x W x H)	310 x 205 x 75

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	140A max

Suits lamps and fluorescents up to 1000W, 68cm televisions and VCRs, power drills, blenders, microwave ovens, belt sanders etc.

Rear View

Lead supplied with unit.

	Cat.	Qty 1+	Qty 3+	Qty 6+
1000W 12VDC	MI-5112	$249.00	$225.00	$198.95

1 YEAR WARRANTY

POWERTECH

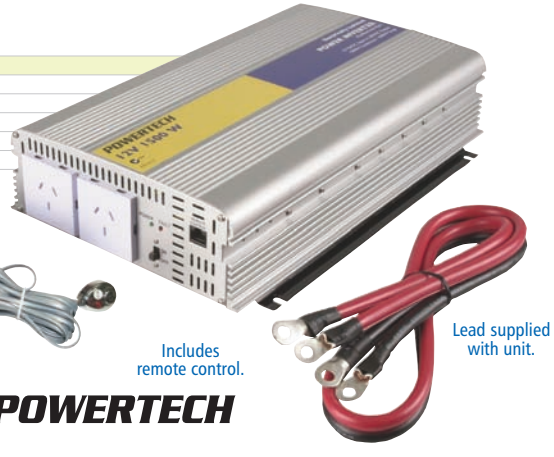
1500 Watt (3500 Watt Surge) 12VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	1500W
Output power - surge	3500W
Standby current	< 1A
Input voltage	12VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Bolt eye terminals
Weight	6.2kg
Dimensions (L x W x H)	395 x 240 x 90

Circuit Protection	
Thermal shutdown/alarm	60°C
Low battery alarm	10.5V+/- 0.5V
Low battery shutdown	10.0V+/- 0.5V
Battery high shutdown	15.5V+/- 0.5V
External fusing	210A max

Suits lamps and fluorescents up to 1500W, 68cm televisions and VCRs, power drills, blenders, microwave ovens, belt sanders, computers etc.

Rear View



Includes remote control.

Lead supplied with unit.

	Cat.	Qty 1+	Qty 3+	Qty 6+
1500W 12VDC	MI-5114	$399.00	$359.00	$319.00

1 YEAR WARRANTY

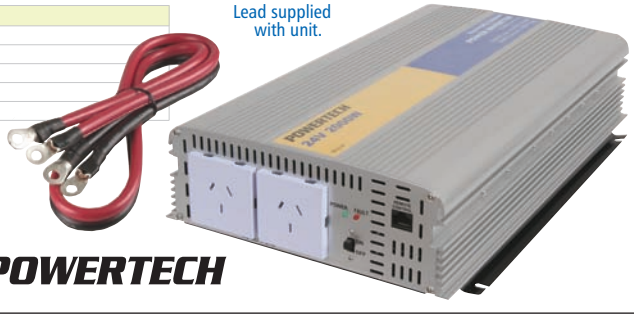
POWERTECH

2000 Watt (4500 Watt Surge) 24VDC to 230VAC Electrically Isolated

Specifications	
Output power - continuous	2000W
Output power - surge	4500W
Standby current	<2.5A
Input voltage	24VDC
Output waveform	Modified sine wave
Output regulation	-
Efficiency	>90%
USB output	-
Input connection	Bolt eye terminals
Weight	5.6kg
Dimensions (L x W x H)	395 x 240 x 90

Circuit Protection	
Thermal shutdown/alarm	60°C +/-4°C
Low battery alarm	21VDC+/- 1V
Low battery shutdown	20VDC+/- 1V
Battery high shutdown	30VDC+/- 1V
External fusing	150A max

Lead supplied with unit.



1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
2000W 24VDC	MI-5116	$499.00	$449.00	$399.00

POWERTECH

PURE SINE WAVE INVERTERS

Our superb new range of pure sine wave inverters is one that we don't change very often, in fact we have firmly resisted change sticking to the line "if it ain't broke, don't fix it", and this has remained true for the last 5 years - the performance and reliability has been too good for us to consider changing. So when our factory started trying to push us onto this new range of pure sine wave inverters some time ago, we refused. That was until we started testing them!

This new range of inverters includes advanced control logic which provides standard protection (overload, high temperature, over/under input voltage, and output short circuit) as well as a host of additional features to provide improved performance and reliability under adverse conditions. The control logic checks inverter and load conditions at start-up before applying power. It also applies a soft start feature which near eliminates the risk of inverter overload when large appliances with high in-rush currents are used. Overload detection and prevention uses a three stage alarm which acts as a timed warning so you can decrease the load before the inverter completely shuts down. High temperature protection automatically shuts the inverter down when it reaches a predetermined temperature, then restarts once the temperature has dropped to a lower level. A power saving mode can also be activated to minimise battery drain when the AC output falls below a set power threshold; ideal for use on small appliances such as entertainment equipment. When the threshold is reached the inverter is switched to standby substantially decreasing the standby current draw.

This new range includes models suitable for a variety of mobile and permanent power installations. Ranging from 180 to 2000W, each model has been rigorously tested (and we MEAN rigorously tested!) to ensure the best performance for your application. All models feature a standard 230VAC mains outlet as well as a USB port for powering and charging USB devices. Expected to be in store August/September 2013.

180 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous	180W
Output power surge	360W
Current at no load	300mA
Current in standby mode	80mA
Power saving mode options	OFF, <20W
Input voltage	12VDC
Output wave form	Pure sine wave
Efficiency	84-91%
Output regulation	±3%
Output frequency	50Hz
USB output	5VDC @ 500mA
Size	186(L) x 117(W) x 57(H)mm
Weight	850g
Input connection	Fixed cigarette lighter lead
Remote control	None

Circuit Protection	
Output overload	Three stage alarm and shutdown
Thermal alarm and shutdown	>63° C ±3°
Thermal shutdown restart	<56° C ±3°
Battery low alarm	10.6VDC ± 0.2VDC
Battery low shutdown	10VDC ± 0.2VDC
High battery alarm	15VDC ± 0.2VDC
Input protection	Internal 25A fuse

POWERTECH

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
180W 12VDC	MI-5700	$189.00	$169.95	$150.95

360 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous:	360W
Output power surge:	720W
Current at no load:	400mA
Current in standby mode:	100mA
Power saving mode options	OFF, <20W
Input voltage:	12VDC
Output wave form:	Pure sine wave
Efficiency:	84-91%
Output regulation:	±3%
Output frequency:	50Hz
USB output:	5VDC @ 500mA
Size:	230(L) x 118(W) x 57(H)mm
Weight:	1.05kg
Input connection:	Heavy duty screw terminals
Remote control:	None

Circuit Protection	
Output overload:	Three stage alarm and shutdown
Thermal alarm and shutdown:	>63° C ±3°
Thermal shutdown restart:	<56° C ±3°
Battery low alarm:	10.6VDC ± 0.2VDC
Battery low shutdown:	10VDC ± 0.2VDC
High battery alarm:	15VDC ± 0.2VDC
Input overload:	Internal 50A fuse

POWERTECH

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
360W 12VDC	MI-5702	$229.00	$209.00	$182.95

800 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous:	800W
Output power surge:	1600W
Current - no load/standby:	500mA/ 150mA
Power saving mode options	OFF, <20W
Input voltage:	12VDC
Output wave form:	Pure sine wave
Efficiency:	84-91%
Output regulation:	±3%
Output frequency:	50Hz
USB output:	5VDC @ 500mA
Size:	295(L) x 165(W) x 57(H)mm
Weight:	1.9kg
Input connection:	Heavy duty screw terminals
Remote control:	Wired 5m on/off switch with status light

Circuit Protection	
Output overload:	Three stage alarm and shutdown
Thermal alarm and shutdown:	>63° C ±3°
Thermal shutdown restart:	<56° C ±3°
Battery low alarm:	10.6VDC ± 0.2VDC
Battery low shutdown:	10VDC ± 0.2VDC
High battery alarm:	15VDC ± 0.2VDC
Input overload:	Internal 100A fuse

POWERTECH

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
600W 12VDC	MI-5704	$399.00	$359.00	$319.00

Sine Wave Inverters

SINE WAVE RANGE (CONTINUED)

1100 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous:	1100W
Output power surge:	2200W
Current - no load/standby:	650mA/ 175mA
Power saving mode options	OFF, <30W, <50W, <100W
Input voltage:	12VDC
Output wave form:	Pure sine wave
Efficiency:	84-91%
Output regulation:	±3%
Output frequency:	50Hz
USB output:	5VDC @ 500mA
Size:	280(L) x 230(W) x 74(H)mm
Weight:	3.6kg
Input connection:	Heavy duty screw terminals
Remote control:	Wired 5m on/off switch with status light

Circuit Protection	
Output overload:	Three stage alarm and shutdown
Thermal alarm and shutdown:	>63° C ±3°
Thermal shutdown restart:	<56° C ±3°
Battery low alarm:	10.6VDC ± 0.2VDC
Battery low shutdown:	10VDC ± 0.2VDC
High battery alarm:	15VDC ± 0.2VDC
Input overload:	Internal 150A fuse

POWERTECH

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
1100W 12VDC	MI-5706	$599.00	$539.00	$479.00

1500 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous:	1500W
Output power surge:	3000W
Current - no load/standby:	800mA/ 200mA
Power saving mode options	OFF, <30W, <50W, <100W
Input voltage:	12VDC
Output wave form:	Pure sine wave
Efficiency:	84-91%
Output regulation:	±3%
Output frequency:	50Hz
USB output:	5VDC @ 500mA
Size:	350(L) x 230(W) x 74(H)mm
Weight:	4.2kg
Input connection:	Heavy duty screw terminals
Remote control:	Wired 5m on/off switch with status light

Circuit Protection	
Output overload:	Three stage alarm and shutdown
Thermal alarm and shutdown:	>63° C ±3°
Thermal shutdown restart:	<56° C ±3°
Battery low alarm:	10.6VDC ± 0.2VDC
Battery low shutdown:	10VDC ± 0.2VDC
High battery alarm:	15VDC ± 0.2VDC
Input overload:	Internal 200A fuse

POWERTECH

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
1500W 12VDC	MI-5708	$849.00	$765.00	$679.00

2000 Watt 12VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous	2000W
Output power surge	4000W
Standby current	1800mA
Input voltage	12VDC
Output waveform	Pure Sine wave
Efficiency	>90%
Output regulation	<+/-3%
Output frequency	50Hz
USB output	5VDC +/-5% 500mA
Dimensions	520(L) x 200(W) x 88(D)mm
Weight	5.5kg
Input Connection	Heavy duty screw terminals

Circuit Protection	
Thermal shutdown & alarm	60˚C +/-4˚C
Battery low alarm	10.5VDC +/-0.5VDC
Battery low shutdown	10VDC +/-0.5VDC
High battery shutdown	16VDC +/-0.5VDC
Overload	Shutdown
Short circuit	Shutdown
Battery reverse	Internal fuse

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MI-5710	$1,099.00	$989.00	$879.00

2000 Watt 24VDC to 230VAC Pure Sine Wave - Electrically Isolated

Specifications	
Output power continuous:	2000W
Output power surge:	4000W
Current - no load/standby:	500mA/ 150mA
Power saving mode options	OFF, <30W, <50W, <100W
Input voltage:	24VDC
Output wave form:	Sine wave
Efficiency:	84-91%
Output regulation:	±3%
Output frequency:	50Hz
USB output:	5VDC @ 500mA
Size:	450(L) x 230(W) x 74(H)mm
Weight:	5.4kg
Input connection:	Heavy duty screw terminals
Remote control:	Wired 5m on/off switch with status light

Circuit Protection	
Output overload:	Three stage alarm and shutdown
Thermal alarm and shutdown:	>63° C ±3°
Thermal shutdown restart:	<56° C ±3°
Battery low alarm:	21.2VDC ± 0.3VDC
Battery low shutdown:	20VDC ± 0.3VDC
High battery alarm:	30VDC ± 0.3VDC
Input overload:	Internal 150A fuse

POWERTECH

TECH TIP!
24V IDEAL FOR TRUCKS

2 YEAR WARRANTY

Due August/September

	Cat.	Qty 1+	Qty 3+	Qty 6+
2000W 24VDC	MI-5712	$1,099.00	$989.00	$879.00

SEALED LEAD ACID BATTERIES

Sealed lead acid batteries are used generally for two purposes. Standby applications such an emergency power source for safety lights and for security and burglar alarm systems, computer peripheral terminals etc. and cyclic applications as a portable power source for tape recorders, VCRs, toys, lights and use with solar panels for remote power.

The features of these batteries include:
- leak proof construction
- usable and rechargeable in any position
- wide operating temperature range
- designed not to discharge hydrogen into the atmosphere.
- long service life
- high discharge rate capability
- deep discharge recovery

Charge voltage for 12 volt is 13.5 to 14.7 volts and for 6 volt is 6.8 to 7.4V volts.
The charging time must be doubled if the charge current is halved.

Cat.	Capacity	20hr rate	10hr rate	5hr rate	1hr rate	Initial Charge Current	Cycle Voltage	Standby Voltage	Page
SB-2495	6V 1.3Ah	65mA (1.3Ah)	117mA (1.17Ah)	208mA (1.04Ah)	780mA (0.78Ah)	<0.39A	7.20-7.50V	6.75-6.90V	311
SB-2496	6V 4.2Ah	210mA (4.2Ah)	378mA (3.7Ah)	672mA (3.36Ah)	2.25A (2.25Ah)	<1.2A	7.20-7.50V	6.75-6.90V	311
SB-2498	6V 5Ah	250mA (5.0Ah)	450mA (4.5Ah)	800mA (4Ah)	3.0A (3.0Ah)	<1.5A[1]	7.20-7.50V	6.75-6.90V	311
SB-2497	6V 12Ah	600mA (12Ah)	1.08A (10.8Ah)	1.92A (9.6Ah)	7.2A (7.2Ah)	<3.6A	7.20-7.50V	6.75-6.90V	311
SB-2480	12V 1.3Ah	65mA (1.30Ah)	117mA (1.17Ah)	208mA (1.04Ah)	780mA (0.78Ah)	<0.39A	14.4-15.0V	13.5-13.8V	311
SB-2482	12V 2.2Ah	110mA (2.2Ah)	198mA (1.98Ah)	352mA (1.76Ah)	1.32A (1.32Ah)	<0.66A	14.4-15.0V	13.5-13.8V	311
SB-2484	12V 4.2Ah	200mA (4.2Ah)	380mA (3.8Ah)	680mA (3.4Ah)	2.40A (2.4Ah)	<1.2A	14.4-15.0V	13.5-13.8V	311
SB-2485	12V 6Ah	300mA (6Ah)	486mA (4.86Ah)	864mA (4.32Ah)	3.24A (3.24Ah)	<1.62A	14.4-15.0V	13.5 - 13.9V	311
SB-2486	12V 7.2Ah	360mA (7.2Ah)	650mA (6.5Ah)	1.15A (5.75Ah)	4.32A (4.32Ah)	<2.1A	14.4-15.0V	13.5-13.8V	311
SB-2487	12V 9Ah	450mA (9Ah)	810mA (8.1Ah)	1.44A (7.2Ah)	5.4A (5.4Ah)	<2.7A	14.4-15.0V	13.5 - 13.9V	312
SB-2489	12V 12Ah	600mA (12Ah)	1.08A (10.8Ah)	1.92A (9.6Ah)	7.2A (7.2Ah)	<3.6A	14.4-15.0V	13.5 - 13.9V	312
SB-2490	12V 18Ah	900mA (18Ah)	1.72A (17.2Ah)	3.05A (15.2Ah)	10.8A (10.8Ah)	<3.4A	14.4-15.0V	13.5 - 13.9V	312
SB-1698	12V 26Ah	1.3A (26Ah)	2.11A (21.1Ah)	3.74A (18.7Ah)	14A (14Ah)	<7.8A	14.4-15.0V	13.5 - 13.9V	318
SB-1699	12V 38Ah	1.94A (38.8Ah)	3.8A (38Ah)	6.16A (30.8Ah)	22.3A (22.3Ah)	<12A	14.4-15.0V	13.5 - 13.9V	318
SB-1695	12V 100Ah	5.1A (102Ah)	10A (100Ah)	16.2A (81Ah)	58.5A (58.5Ah)	<30A	14.4-15V	13.5 - 13.8V	318

Note 1: Current is limited by spring terminal type

6 VOLT SLA BATTERIES

1.3 Amp Hour - 6 Volt

- Size: 97 (L) x 51 (D) x 21(H)mm
- Spare SLA battery
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2495	$12.95	$11.35	$10.35

4.5 Amp Hour - 6 Volt

- See table for specifications
- Size: 70(L) x 47(D) x 106(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2496	$14.95	$13.35	$11.70

5.0 Amp Hour 6 Volt Lantern Battery

This 6 volt 5Ahr rechargeable sealed lead acid battery suits those popular Dolphin style torches.
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2498	$24.95	$22.35	$19.70

12 Amp Hour 6 Volt

- Size: 151(L) x 51(D) x 100(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2497	$29.95	$26.90	$23.70

12 VOLT SLA BATTERIES

1.3 Amp Hour 12 Volt

- Size: 97(L) x 43(D) x 57(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2480	$19.95	$17.70	$15.70

2.2 Amp Hour 12 Volt

- Size: 178(L) x 34(D) x 66(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2482	$22.95	$20.35	$18.35

4.2 Amp Hour 12 Volt

- Size: 90(L) x 70(D) x 106(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2484	$27.95	$24.95	$22.35

6.0 Amp Hour 12 Volt

- Size: 150(L) x 65(W) x 93(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2485	$24.95	$22.35	$19.70

7.2 Amp Hour 12 Volt

- Size: 151(L) x 65(D) x 93(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2486	$29.95	$26.90	$23.70

TECH TIP

Battery Maintenance

Periodic visual inspection of the battery is recommended.

If the battery is stored for over six months, it is recommended to charge and discharge the battery several times to resume the battery capacity, failure to do so may result in a loss of capacity and shorter battery life.

Bear in mind that self-discharge has to be taken into consideration when storing a charged battery. The remaining battery capacity should be at least 50% after a month of storage at room temperature for a fully charged battery. High storage temperatures will accelerate the self-discharge, and reduce the remaining capacity.

Sealed Lead Acid Batteries & Chargers

12 VOLT SLA BATTERIES (CONTINUED)

9.0 Amp Hour 12 Volt

- Size: 150(L) x 65(W) x 93(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2487	$39.95	$35.90	$31.90

12.0 Amp Hour 12 Volt

- Size: 150(L) x 100(W) x 93(H)mm
- See table for specifications

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2489	$54.95	$49.45	$43.90

18 Amp Hour 12 Volt

- Size: 181(L) x 77(D) x 167(H)mm
- See table for specifications

Nuts & Bolts Supplied

Cat.	Qty 1+	Qty 4+	Qty 10+
SB-2490	$74.95	$67.50	$59.95

SLA Battery Carry Bag

Designed for carrying a large sealed lead-acid battery. Suits sealed lead-acid batteries 12V 7.2Ah (SB-2486) or 6V 12AH (SB-2497) - (and Panasonic equivalents) approx. max. size 151 x 65 x 101mm. Features fused cigarette-lighter socket (10A), zip-up cover, and internal fold-away protective flap.

- Battery can be medium/slow charged INSIDE THE BAG!

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-6360	$19.95	$17.70	$15.70

RELATED PRODUCT...

See page 315 for Hold Down Hardware

BATTERY TERMINALS

500A Red/Black Snap On Battery Terminals

Red/Black quick connect/disconnect battery terminals for automotive, marine, or industrial use. Used for protecting the exposed positive/negative battery connections from dust, grime or other build up.

- Rated at 500A
- Dimensions: 66(L) x 42(W) x 25(H)mm

Note: Battery not included

	Cat.	Qty 1+	Qty 10+	Qty 50+
Set of 2	HM-3087	$14.95	$13.35	$11.70

Universal Brass Battery Terminals

These heavy duty, solderless range of Marine grade brass battery terminals have got you connected.

With five options available from universal saddle, lug bolt style, side barrel, end entry and not forgetting the built in isolating switch perfect for isolating your battery to prevent battery drain when not in use.

Sold in Pairs, POS - NEG, HC-4038 isolation type sold singular (Negative post only)

HC-4030

HC-4032

HC-4034

HC-4036

HC-4038

Type		Cat.	Qty 1+	Qty 4+	Qty 10+
Saddle	Pair	HC-4030	$9.95	$8.75	$7.75
End Entry Single Bolt	Pair	HC-4032	$9.95	$8.75	$7.75
Lug Bolt Style	Pair	HC-4034	$9.95	$8.75	$7.75
Barrel 2-Bolt Side Entry	Pair	HC-4036	$9.95	$8.75	$7.75
Isolating (Negative Post)	Each	HC-4038	$9.95	$8.75	$7.75

SLA BATTERY CHARGERS

6V 500mA & 12V 350mA

These are 240V plug in power packs for charging lead-acid batteries. They are fully automatic, in as much as they switch to trickle charge automatically when the battery is charged. This way you don't have to remember to switch them off after so many hours. The charging indicator (LED) will flash to show that the unit is operating in trickle charge state. This advanced charger delivers 100% full charge to the battery. Both have spade clips on the output to clip onto battery terminals, and are Energy Authority approved.

	Approval Number	Cat.	Qty 1+	Qty 2+	Qty 4+
6V 500mA	N17982	MB-3516	$19.95	$17.70	$15.70
12V 350mA	N17982	MB-3517	$19.95	$17.70	$15.70

2, 6 & 12V 600mA

This fully automatic charger will charge 2V, 6V, and 12V sealed, and standard (car) lead-acid batteries. When the battery is completely charged, the current is automatically reduced to prevent overcharging.

- 600mA charging current
- Short circuit and wrong polarity protected
- Constant charging current
- No charge if battery connected incorrectly
- LED's show charging state

Output lead has battery clips for easy charging. Ideal to trickle charge your car battery while on holidays or keep those SLA batteries charged and in tip top condition.

	Approval No.	Cat.	Qty 1+	Qty 2+	Qty 4+
2V/6V/12V 600mA	N19029	MB-3518	$24.95	$22.35	$19.70

12V 1A

This SLA charger is fully automatic. When the battery is charged, the charger automatically switches to trickle charge and a green LED will show this. Virtually any SLA battery can be charged but the higher the battery size, the longer the charge.

- Short circuit and wrong polarity prevention
- Constant charging current
- No charge with wrong polarity connection
- No voltage at alligator clips until battery is connected
- Will not charge a totally flat battery i.e. zero volts
- Energy Authority Approved

	Approval No.	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 1A	N19029	MB-3526	$24.95	$22.35	$19.70

6V & 12V 1.8A

This 1.8 Amp charger includes a built in polyswitch for over current and polarity protection. Includes a LED for power on indication. Virtually any SLA battery can be charged, though the higher the capacity, the longer the charge time. Supplied with a 2.1mm DC plug and a lead with battery clips.

- 6V or 12V charging
- Short circuit protection
- Reverse polarity protection

Note: Will not charge a totally flat battery i.e. zero volts.

	Approval No.	Cat.	Qty 1+	Qty 2+	Qty 4+
6V/12V 1.8A	N19309	MB-3523	$29.95	$26.90	$23.70

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

*ABN will be required - see our website or Store Manager for further details.

SLA BATTERY CHARGERS (CONTINUED)

6V & 12V, 8A Heavy Duty with Trickle Charge

This charger is suitable for both 6 and 12 volt car, boat, motorcycle and lawnmower batteries. Featuring 4-stage LED charge indicators, the charger can be switched between trickle or heavy duty charge rates and is recommended for casual, domestic charging tasks. The unit is housed inside a tough plastic case with carry handle, is double insulated and features overload and reverse battery protection. The battery leads are terminated to heavy duty alligator clips on a 1 metre length of cable.

- Complies with Australian Electrical Safety Regulations.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
6V/12V 8A	MB-3522	$59.95	$53.95	$47.90

12V 10A Intelligent Switchmode 5 Stage Battery Charger

NEW 2013

A robust 12V battery charger packed with useful features to safely charge and maintain the life of your batteries. The front control panel allows you to control the battery type being charged (see below for supported types), the desired charge rate, the display mode (current, battery voltage, charge percentage). It will also indicate if there is a battery fault or if the polarity is reversed in which case the charging will immediately stop to protect the battery. Features positive/negative fly leads with clips that are neatly tucked away into a compartment at the rear of the unit.

There are 5 stages of operation:

1. Soft Start - tests the battery condition. A severely discharged battery needs charging with a reduced current until the voltage reaches 12V.
2. Bulk charging - delivers most of the charge (60-80%). The charger delivers maximum current until the terminal voltage has risen to the set level.
3. Absorption - completes the charging up to nearly 100% at a constant voltage. The current tapers off as the battery reaches full capacity.
4. Float - maintenance charging at constant voltage, keeping the battery at 100% charge.
5. Pulse - long term maintenance charging. Cycles the battery between 80 and 100% charge for maximum battery life. The battery receives a pulse, starting a new charge cycle, when voltage drops to set limit. The charger can be connected for months keeping the batteries fresh.

- Short circuit protection
- Voltage compensation
- Overheat protection
- Polarity reversal protection
- Fan cooled
- Faulty battery indicator
- Charging current: 2A (Low rate), 6A (Normal rate) , 10A (High rate)
- Input voltage: 220VAC-240VAC
- Supported battery types: WET/Flooded, GEL, AGM, MF, VRLA, Calcium type Lead Acid rechargeable batteries
- Dimensions: 230(H) x 170(W) x 140(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 10A	MB-3625	$99.95	$89.95	$79.95

6V/12V/24V 15A Intelligent Battery Charger

An intelligent battery charger suitable for flooded and gel lead acid batteries including deep cycle batteries at 6V, 12V or 24V. The microprocessor controlled unit provides 4 stages of charging, Soft Start, Bulk Charge, Absorption and Float which assists in the batteries life expectancy and performance. An auto detection feature provides a user friendly experience, which can be pre-programmed or manually set for greater control. Should a blackout occur or AC input power be lost during a charging operation the memory function will resume charging once power is re-established. Other features include temperature/voltage compensation, reverse polarity/short circuit protection and a battery status indicator. Ideal for cars, motorcycles, caravans and boats with battery capacities between 20-200Ah. It's also ultra-portable with a handy storage pocket in the back for the leads.

- Memory function
- Temperature controlled fan
- LED battery status display
- Temperature and voltage compensation

Protection:
- Anti spark
- Short circuit
- Reverse polarity
- Over heating/current/voltage

1 YEAR WARRANTY

Specifications	
Input	220 - 240VAC, 2.5A
Output	15A @ 12V
	7A @12V/24V
	2A @ 6V/12V/24V
Dimensions	230(H) x 170(W) x 140(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
6V/12V/24V 15A	MB-3623	$149.00	$133.95	$118.95

JUMP STARTERS

3-in-1 Jump Starter - Charger - Work Light

NEW 2013

This model is perfect for getting a car, motorbike, or a light truck back up and running when the battery goes flat. Inside is a powerful 17Ah SLA battery ideal for vehicles that require a larger start-up current. Just attach the heavy duty battery clamps to the battery terminals and away you go. It also doubles as a 12VDC power supply with a cigarette lighter socket so you can recharge or operate an array of 12VDC powered accessories. The front panel includes a battery level indicator, a reverse polarity indicator, as well as a work light for night time use. Black rubber edges and corners keeps the unit insulated from knocks and drops.

- 17Ah SLA battery
- Max current: 900A
- Cranking: 450A
- Work light included
- 12VDC cigarette lighter socket
- Includes mains adaptor for recharging at home
- Includes cigarette lighter cable for in-car charging
- LED battery level indicator
- Dimensions: 285(H) x 251(W) x 130(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
3-in-1	MB-3692	$99.95	$89.95	$79.95

6-in-1 Jump Starter Power Station

NEW 2013

Tucked in on either side are two tough insulated battery clamps for jump starting a vehicle or charging a 12VDC battery. The front panel features 2 x 12VDC cigarette lighter sockets for operating 12V appliances, a 5 LED powered work light and two digital display indicators for remaining battery capacity and air pressure. There is also a DC socket as well as an LED polarity indicator to warn if your connections are reversed. An extremely useful 260PSI air compressor is also built into the unit so you can inflate a flat car tyre or other inflatables, by simply setting the pressure on the digital gauge and the compressor will automatically inflate to the set pressure. Inflating pressure can be viewed from the front digital readout and switched between PSI and BAR. The unit also features a 400W inverter output at the rear and a 5VDC 2.1A USB socket for charging and operating Smartphones, Tablets, or other USB devices. Black rubber handle and corners will protect against common knocks and accidental drops.

- Automatic air compressor for pumping tyres and other inflatables
- AC and DC chargers included
- 12V 18Ah SLA battery inside
- 400W (800W surge) modified sine wave Inverter - 230VAC outlet at rear for powering laptops, etc
- 5 LED work/map light at front panel
- Charging and air compression dial indicators
- 2 x 12VDC sockets for running 12V appliances
- DC charging takes approximately 12 hours
- AC charging takes approximately 34 hours
- Charging jack
- Built in air cooling fan
- Battery level indicator
- 1000A Peak, 500A Cranking
- Dimensions: 295(H) x 273(W) x 215(W)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
6-in-1	MB-3694	$159.00	$142.95	$126.95

12V / USB E-Charger / Power Bank

This unit is designed for use on 12V vehicles with a weak starter battery. The power bank's 600mm lead plugs into the automotive cigarette lighter socket and will take approximately 15 minutes to deliver sufficient power to start the vehicle. With a USB and a female automotive accessory socket, this unit also services as a back-up device for other equipment such as mobile phones, PDA and iPods®.

- This device will not work with a heavily discharged or sulphated automotive battery
- Terminates to a 15A fused male automotive cigarette lighter plug for charging

Specifications	
Internal battery	12V 4 amp SLA
Accessory output power	12VDC @ 5 amp max
USB output power	5VDC @ 500mA max
Power	240VAC mains charger supplied
Unit measures	250(W) x 110(L) x 80(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
12V 4A	MB-3597	$29.95

Multi-State Battery Chargers

MULTI-STATE BATTERY CHARGERS

Switchmode Multi State Battery Chargers

High tech SLA battery chargers for automotive, marine, motorcycle, workshop or industrial use. All feature switchmode operation, multi-stage maintenance and charging, near-bulletproof performance and microprocessor control. All are IP rated for use in workshops and hostile environments.

POWERTECH PLUS

- 3 year warranty
- Short circuit & reverse polarity protection
- Anti-spark protection
- Dust & splash proof (IP65 rated)
- Standby, fault, mode selection and charging LED indicators
- Mounting feet for wall mounting
- Safe to leave connected for months at a time

6/12V 3-State

3-stage set-and-forget maintenance charger. Automatically diagnoses, recovers and recharges 6 or 12 volt lead-acid, gel, and AGM rechargeable batteries for boats, motorcycles etc. Maintains your battery for months and extends battery life by constantly monitoring battery condition and bulk, trickle or maintenance charges accordingly. Handy storage hooks for alligator clips keep the lead out of the way when not in use.

Specifications:	
Output voltage	7.2, 14.4VDC
Charging current	750mA max
Efficiency	>75%
Ripple	150mV max
Back current drain	<35mA
Capacity	1.2 - 20Ah
Rating	IP65 Rated
Dimensions	110(L) x 62(W) x 45(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
6/12V 750mA	MB-3603	$49.95	$44.90	$39.90

3 YEAR WARRANTY

12V 3.8A 5-State

Three different modes of operation make this charger suitable for all types of SLA batteries - wet cell, gel cell, and AGM, ranging in capacity from 1.2Ah to 120Ah. The microprocessor controlled circuitry will diagnose the battery's state of charge, provide the correct charging mode, eventually switching over to float/maintenance charge to keep thebattery at full charge & eliminate battery sulphation. This charger can also recover slightly sulphated batteries as low as 7.5V, & charge batteries in sub-zero temperatures. The interchangeable lead sets allows a charging lead to be permanently attached to your battery for quick connection/disconnection of the charger - a must have for motorbikes with hard to reach battery terminals or that classic car that spends most its life in the garage! 100% safe to leave connected to your vehicle's battery for months.

3 different charging modes:
- Mode 1: 14.4V / 0.8A, for motorcycle batteries
- Mode 2: 14.4V / 3.8A, for car batteries
- Mode 3: 14.7V / 3.8A, for AGM batteries and sub-zero temperatures
- IP65 Rated
- Dimensions: 175(L) x 60(D) x 45(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 3.8A	MB-3604	$79.95	$71.95	$63.95

3 YEAR WARRANTY

12V-7.0A/24V-3.5A 7-State

The bigger brother of MB-3604, this is a 5-stage full maintenance charger for 12 and 24V lead acid - SLA, gel and AGM batteries with bonus features. Fully automatic charging modes with diagnostic and recovery features, it also features a power supply mode where it can act as a 13.6VDC 5A power supply. Unrivalled versatility, offers six different modes of operation:

- 14.4V/7A Charge - for 12V lead acid batteries
- 14.7V/7A Charge - for 12V AGM batteries
- 28.8V/3.5A Charge - for 24V lead acid batteries
- 29.4V/3.5A Charge - for 24V AGM batteries
- 16V/1.5A BOOST - to recover severely discharged 12V batteries
- 13.6V/5A Power Supply
- Interchangeable lead set (alligator clips and ring terminal leads included)
- Overload, short circuit, open circuit, anti-spark and reverse polarity protected
- Suitable for 12 and 24V batteries (automatic detection)

Specifications:	
Input voltage	220 - 240VAC
Output voltage	14.4, 14.7V, 28.8V, 29.4V, 16V, or 13.6VDC
Input current	400mA max
Charging current	12V-7A, 24V-3.5A
Efficiency	>75%
Ripple	150mV, 300mA max
Back current drain	<5mA
Rated	IP65
Dimensions	200(L) x 85(W) x 50(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12/24V 7A / 3.5A	MB-3606	$149.00	$133.95	$118.95

3 YEAR WARRANTY

12V-25.0A/24V-12.5A 9-State

Nine step fully automatic 25 amp high current charger with maintenance charging of all types of SLA batteries as well as lead-calcium batteries from 50 - 500Ah, either 12V or 24V. The electronics are fully microprocessor controlled and protected against user error, so is totally safe to leave connected for months at a time. This charger will also charge in sub-zero temperatures, will recover sulphated batteries and can be used as a 5A power supply. Also features "boost" modes to recover deeply discharged batteries. The battery output lead has a temperature sensor to automatically compensate charging voltage dependant on temperature, so no matter what the conditions, you will get a full charge into your battery. For caravan and boat users, it also has a night charge mode: in this silent mode, charging is performed at reduced current with the cooling fans turned off, then returns to normal levels after 9 hours. See our website to download full product info sheet.

Specifications	
Input voltage	170 - 260VAC
Output voltage	12 or 24VDC
Input current	4A max
Charging current	12V-7A, 24V-3.5A
Efficiency	>75%
Ripple	150mV, 300mA max
Back current drain	<5mA
Rating	IP44 Rated
Dimensions	260(L) x 135(W) x 70(H)mm

TECH TIP!

Perfect for boats, caravans & motorhomes

See our website to download full product info sheet.

	Cat.	Qty 1+	Qty 2+	Qty 4+
12/24V 25A/12.5A	MB-3608	$399.00	$359.00	$319.00

3 YEAR WARRANTY

BATTERY CHARGE & BOOST CONTROLLERS

4 Stage 40A DC to DC Boost Charger

NEW 2013

A significant voltage drop can occur in dual battery systems where the auxiliary battery is some distance from the main battery. A DC to DC boost charger the solution to that problem. This DC to DC boost charger is capable of taking an 8-16VDC input voltage, and giving a stable, regulated 13.8V/14.4V 4-stage charger output to give your auxiliary battery a full 100% charge. Even if the power is coming down a long cable and has suffered some voltage drop, this charger will boost the voltage back up. It can also be configured to work as a 13.8V power supply, again with the ability to boost voltage. Charge voltages are adjustable to suit different types of lead acid batteries via some DIP switches, and input/output connections are made with heavy duty terminals. Output current is rated at 40A to ensure a quick charge.

1 YEAR WARRANTY

Specifications	
Input voltage	8-16VDC
Output voltage	13.8V
Output current	40A
Bulk/absorb charge	14.6V, 14.8V
Float charge	13.2V-13.8V selectable
Power supply mode	13.8Vdc
Efficiency	85-90%
Weight	2.3kg
Dimensionss	220(L) x 150(W) x 70(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3690	$299.00	$269.00	$239.00

Battery-to-Battery DC Charge Controller 12/24V 140A

This advanced programmable Battery-to-Battery DC Charge Controller can be used in three different and distinct ways making it a genuine battery management control system. Firstly, it can be used as a bi-directional, fully programmable battery to battery charge controller. Alternatively, it can be used as an independent, fully programmable DC load controller low voltage disconnect/re-connect with programmable twin timer functions. Or finally, it can be used in conjunction with the SuperCombi power management system as the DC load controller or DC generator input. Being fully programmable via the large LCD and simple intuitive front panel controls, the possible applications for this little device are vast and the programmable flexibility allows for even the more abnormal installations - even if the battery is mounted right up the other end of your caravan with 20m of cable from the DC charging source, you can adjust the voltage set points to compensate for voltage drop of the cables. Suitable for 12V or 24V systems, up to 140A maximum current.

WATCH VIDEO

2 YEAR WARRANTY

Specifications	
Operating voltage	9-35VDC
Rated continuous current	100A/12V, 70A/24V
Rated intermittent current	140A/12V, 100A/24V
Dimensions	111(W) x 90(H) x 58(D)mm
See website to download user manual.	

	Cat.	Qty 1+	Qty 3+	Qty 6+
140A DC Switch Controller	MI-5282	$229.00	$209.00	$182.95

4-Stage 24V to 12V DC to DC Battery Charger, 40A

NEW 2013

A simple solution to an ever increasing problem - a DC to DC battery charger that will charge a 12V battery from a 24V battery source with 4-stage operation. In many RV's and motorhomes the engine has a 24VDC system, but the house battery system is 12VDC system, and there is usually no way for the engine alternator to charge the house batteries when driving. This nifty product solves that issue, charging the 12V house batteries from the 24V engine alternator whilst also providing electrical isolation to avoid any nasty surges going either way. Suitable for all types of lead-acid batteries, with selections for different charge voltages, and provides up to 40A of charge current to the 12V battery.

1 YEAR WARRANTY

Specifications	
Input	20-30VDC
Output voltage	13.8-14.8V selectable
Output current	40A max
Dimensions	240(L) x 115(W) x 70(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3691	$299.00	$269.00	$239.00

BATTERY BOXES, TRAYS & CLAMPS

Battery Boxes

NEW 2013

Protect your batteries with these sturdy boxes. Perfect for mounting in your boat, trailer or caravan. Includes mounting clamps and lid strap to secure the box properly in place.

Note: Battery not included

Two models available:

HB-8100 - Battery box to suit 40Ah SLA batteries
- Dimensions: External: 365 (L) x 270 (W) x 265 (H)mm
  Internal: 260 (L) x 180 (W) x 200 (H)mm

HB-8102 - Battery box to suit 100Ah SLA batteries
- Dimensions: External: 460 (L) x 265 (H) x 260 (W)mm
  Internal: 350 (L) x 200 (H) x 180 (W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
365 x 270 x 265mm	HB-8100	$24.95	$22.35	$19.70
460 x 265 x 260mm	HB-8102	$29.95	$26.90	$23.70

Heavy Duty Steel Battery Trays

NEW 2013

These battery trays are pressed out of 1.2mm mild steel & vinyl coated to protect from acids, oils etc.

They feature cruciform slots in the base to facilitate existing mounting holes in a truck or car chassis, as well as slots to allow battery hold-down rods.

HB-8104

2 sizes available:

BATTERY SECURING TRAY - SMALL
Dimensions: 280(L) x 200(W) x 45(H)mm
HB-8104

BATTERY SECURING TRAY - LARGE
Dimensions: 340(L) x 200(W) x 45(H)mm
HB-8106

Note: Not recommended for marine salt water use.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Small	HB-8104	$12.95	$11.35	$10.35
Large	HB-8106	$13.95	$12.35	$10.95

Adjustable Universal Battery Hold Down Clamp

NEW 2013

Universal battery clamp which adjusts to suit batteries ranging from 135-190mm width and 150-230mm height.

- Metal construction with wing nut adjustments

Note: Battery not included

RELATED PRODUCT...
See page 312 for Battery Terminals

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HC-4039	$9.95	$8.75	$7.75

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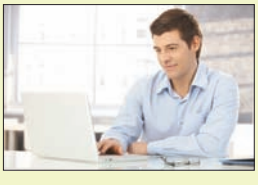


Battery Power Management

BATTERY DISCONNECTS & ACCESSORIES

Battery Isolation Switches

High current rated battery isolation switches for high power applications. Often fitted to boats, trucks, motor homes and other battery based power systems to allow for quick and easy electrical isolation of the battery for protection against discharge, fire and other safety risks. Each switch features high quality construction with large bolt-down terminals for electrical connection.

HIGH QUALITY 120A

- Large removable key actuator
- Continuous rating: 120A @ 12V
- Surge rating; 500A, 60mm diameter mounting plate

PROFESSIONAL 500A

The switch handle features a tight and secure spring loaded actuation, locking the switch into the ON position and requiring you to pull the handle out to turn it off, avoiding accidental battery isolation. Features heavy gauge M12 brass bolt terminals, cast metal body for extra strength and durability, and is also supplied with a right angle mounting bracket.

- Continuous rating (6-48VDC): 500A
- Max rating (6-48VDC): 2000A (10 sec)
- Dimensions: 70(D) x 100(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
12V 120A	SF-2245	$17.95	$15.95	$14.35
12V 500A	SF-2247	$49.95	$44.90	$39.90

Dual Battery Isolator with Adjustable Disconnect/Reconnect

For any 4WD, caravan, campervan or motor home enthusiast, a dual battery system is an almost "must have" addition. In order to protect your start battery from being drained by these extra loads, you need to install a dual battery isolator such as one of these. Thise solid-state dual battery isolator works by using high power FETs and MCU controls to automatically connect and disconnect the auxiliary battery to your start battery. The idea being that the isolator allows both batteries to be connected and charged by the alternator whilst driving. The isolator will keep the two batteries connected until the voltage of the start battery is reduced to the cut-out voltage, at which time it will disconnect to ensure that sufficient charge is kept in your start battery to be able to start your engine again. To avoid erroneous cut-in/cut-out "stutter", the unit employs a 15 second delay on the disconnect/reconnect function, ensuring that if a discharged auxiliary battery is connected it does not cause the isolator to immediately disconnect, then immediately reconnect again, then disconnect, etc - which would stop the auxiliary battery from ever being charged. Just in case you do end up with a flat start battery, there is a manual override to connect both batteries and boost the power to start your vehicle. Cut-in and cut-out voltages are independently adjustable with 10 set-points each, and LED indicators let you know what's happening.

- MCU controls with FET switching, 100% solid state technology with extremely low standby current and voltage drop
- 10 user adjustable set points for disconnect and reconnect voltages
- Over current, over voltage and over temperature protection
- Emergency over-ride feature
- Can be used independently as a low voltage disconnect/reconnect for a 100A load

Specifications:	
Low voltage protection (no delay)	8.5VDC +/-0.5VDC
Over voltage protection	18.5VDC +/-0.5VDC
Over current protection	150A
Continuous current	100A
Standby power draw	5mA (LED off)/9mA (LED on)
Voltage drop at max load	250mV
Operating temp. range	-40˚C - 60˚C
Dimensions	195(L)x75(W)x50(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
12V	MB-3680	$119.00	$106.95	$94.95

140A Dual Battery Isolator Kit with Wiring

Allows two batteries to be charged from your engine alternator at the same time. When your engine is on and the start battery is sufficiently charged the isolator kit will begin charging the second (auxiliary) battery simultaneously. When the voltage of the start battery drops (i.e. the engine is stopped) the isolator kit disengages from charging the auxiliary battery. This isolates the start battery and eliminates the possibility of draining it, ensuring that you always have enough charge to start your engine, and also protects sensitive electronic equipment powered from the auxiliary battery from harmful engine start-up spikes. Suitable for 12VDC Marine, 4WD, caravan and solar applications. Dual Battery Isolator available as a standalone unit - see MB-3685

- Emergency override feature
- LED status indicator

Kit contains:
1 x Dual Battery Isolator with mounting screws
1 x 6 metre length of 10mm square red cable terminated at both ends
1 x 600mm black earth cable
2 x Positive Marine battery terminals
1 x Negative Marine battery terminal
1 x SC25-10 Copper crimp lug
2 x 16-8 Copper crimp lugs
2 x Red heat shrink
1 x Insulated blue ring terminal
6 x 200mm cable ties

Specifications	
Continuous rating	140A
Intermittent rating	170A
Voltage rating	12VDC (max 15VDC)
Cut in voltage	13.7VDC
Cut off voltage	12.8V
Isolator dimensions	67(L) x 67(W) x 53(H)mm

	Cat	Qty 1+	Qty 4+	Qty 10+
VSR with Wiring Kit	MB-3686	$139.00	$124.95	$110.95
VSR without Wiring Kit	MB-3685	$79.95	$71.95	$63.95

Battery Switches with Enclosure

Simple 2 and 4 position battery switches for controlling battery power on your boat, caravan, or other high current battery system. The 2-position version is a simple on/off turn switch. The 4-position model allows you to switch power on for 2 batteries at a time, or for each individually. Ideal if you have one battery for starting the engine and another for auxiliary electrical equipment. Durable design, with large indented grips that won't slip under wet hands.

Specifications	SF-2246	SF-2248
Continuous rating	275A	175A
Intermittent rating	455A	300A
Operation	On/Off	Battery 1 on, Battery 2 on, Both batteries on, both batteries off
Operating range	8-50VDC	6-32VDC
Stud size	2x10mm	2x10mm
Dimensions	75(H) x 72(W) x 72(L)mm	134(L) x 134(W) x 71(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Position	SF-2246	$29.95	$26.90	$23.70
4 Position	SF-2248	$39.95	$35.90	$31.90

Battery Isolator with Remote Control Disconnect

This battery isolator will prevent your battery from going flat by automatically disconnecting the battery before reaching dangerously low levels, ensuring there is enough power to get your vehicle started. The remote controls supplied also acts as an immobiliser by cutting battery supply to the vehicle. A brilliant device that will save you a lot of money and headaches. Simple to install, it is supplied with two remote controls.

- Suitable for 12VDC batteries
- Dimensions: 200(W) x 150(L) x 30(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3679	$79.95	$71.95	$63.95

BATTERY MONITORING

Digital DC Power Meters

An ideal addition to any low voltage DC system this digital power meter features real time display of the voltage, current draw, and power consumption. Once running it also stores minimum and maximum voltage, current, and power, together with cumulative amp hours and watt hours consumed by the connected equipment. Suitable for DC systems from 5 to 60 volts and available in two versions for inline connection or remote connection with a separate current shunt. Both meters are mountable using the included snap-in bracket or magnetically on any ferrous surface and can be connected to a PC using the MS-6174 USB data adaptor (sold separately).

- Dimensions: 45(W) x 41(L) x 23(D)mm
- Operating current: 12mA peak
- Measurement Specifications:
- Voltage Range: 5-60VDC (0-60VDC with external DC power source)
- Wattage Range: 0-12,000W

Logging Specifications:
- Cycle Time: 3 minutes
- Maximum Amp Hours: 99,999Ah
- Maximum Kilowatt Hours: 9,999.9kWh
- Maximum Cumulative Log Time: 75 hours
- Data download: Stored data can be transferred to PC using MS-6174 data adaptor (sold separately)

DIGITAL DC POWER METER WITH INTERNAL SHUNT
- Continuous Current Range: 0-20A
- Peak Current: 30A for 30 minutes

MS-6170

DIGITAL DC POWER METER TO SUIT 50MV EXTERNAL SHUNT
- Current Range: 0-200A depending on shunt
- Suitable DC shunts: QP-5412 50A 50mV, QP-5415 100A 50mV, QP-5417 200A 50mV

MS-6172

USB DATA ADAPTOR FOR DC POWER METERS

Enhance the data collection of the MS-6170 or MS-6172 DC power meter by connecting to your PC with this USB data adaptor. The included software allows you to access live data and download stored data from the power meter memory. Data is graphed to show power usage over time and can then be exported for further analysis and logging over long periods. Pack includes data interface module, data cable, USB cable, and PC software.

- Data module dimensions: 45(L) x 35(W) x 18(H)mm

MS-6174

	Current Range	Cat.	Qty 1+	Qty 4+	Qty 10+
	0 - 20A	MS-6170	$69.95	$62.95	$55.95
	0 - 200A	MS-6172	$74.95	$67.50	$59.95
	USB Data Adaptor NEW	MS-6174	$79.95	$71.95	$63.95

Dual Battery Volt/Current Monitor

This unit enables you to monitor your start battery voltage and total battery activity of your auxiliary battery. We all know it is essential to monitor your main (engine starter) battery and use an isolator to prevent it from being overly discharged, but it is also extremely important to know what exactly is happening with your "house power" system. This is valid for boats, 4WDs, caravans/RV's etc., especially when running inverters and refrigeration. This fantastic dual battery monitor serves that purpose by giving you the voltage of your start battery and house battery, as well as the current (amps) flow on your house battery - both charging and discharging. To top it off, the unit warns you via a buzzer if house battery falls below 11.5V (or over 15.5V). The display unit easily fits timber bulkheads up to 27mm thick, or sheet metal dashboards, and a 250A current shunt (75mV) is supplied which should suffice for all but the biggest installations. This product may save you a fortune from replacing damaged batteries.

Specifications	
Front panel dimensions	72(W) x 65(H)mm
Mounting hold	2" or 52mm
Shunt dimensions	135(L) x 30(W) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6176	$149.00	$133.95	$118.95

12V/24V Battery Monitoring System with 3.5" Touch Screen

In mobile power applications such as caravan, RV, marine, etc, being able to actively monitor the condition of your battery bank is both useful and prudent to ensuring you keep your batteries in top condition. Measuring the battery voltage alone is one method of monitoring a battery, but doesn't give a very clear picture of how much charge you actually have left. Using state of the art algorithms to measure current (and correct for Peukert's law), this battery monitor accurately measures the state of charge of the battery, giving you not only a battery voltage, but an actual amp-hour capacity or percentage remaining - just like a fuel gauge for your battery. Simply install the current shunt in line with your battery, and the unit accurately measures what is going into and out of your battery bank, displaying information on the screen accordingly. Scrolling through information and programming is made simple with the touch screen interface and simple menus. Additional features include programmable auxiliary outputs, dual battery isolation (external solenoid required), power consumption logging, multiple information screens, and more.

- 3.5" TFT colour touch screen display
- Displays battery capacity, like a fuel gauge for your battery
- Uses proper "state of charge" algorithms
- Displays both voltage and Ah capacity of the battery
- Start battery and house battery voltage display
- Bi-directional dual battery isolation control (external solenoid/relay required)
- Programmable relay outputs can be used for low voltage disconnect/reconnect, remote generator start, etc.
- Touch screen input for user control and programming
- Suitable for 12V or 24V battery systems
- Attractive panel mount display hosing
- Upgradeable firmware

Specifications	
Measuring current	+/-500A max
Supply voltage	4-30VDC
Current consumption	35-190mA
Sample rate	3S/s
Screen resolution	320x240, 16-bit colour
Panel cut-out	92x74mm
Dimensions	96(W) x 79(H) x 20(D)mm

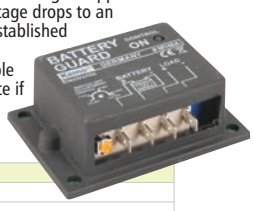
Note: Due mid 2013

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-6182	$349.00	$315.00	$279.00

BATTERY CONDITIONERS

Battery Discharge Protector

Protects your car battery from total discharge by switching off appliances such as fridges and TV sets before the battery voltage drops to an unrecoverable level. When battery voltage is re-established by recharging, it switches appliances on automatically. The interrupting voltage is adjustable from 10.4.to13.3 VDC. Essential low-cost insurance if you have a dual battery setup in a boat, 4WD, RV or for an alternative energy system such as solar or wind power.



Specifications	
Operating voltage	12VDC
Max. switching current	20A
Interrupting voltage	10.4 - 13.3VDC
Resetting voltage	approx. 0.8V (+/-0.3V) above interrupt voltage
Current consumption	< 0.7mA when OFF, < 1.6mA when ON
Dimensions	87(L) x 60(W) x 32(H)mm

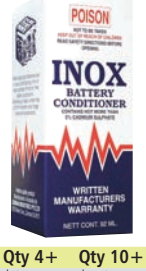
	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-0262	$39.95	$35.90	$31.90

Lead-acid Battery Conditioner

Removes or reduces sulphation which kills batteries. When wet-cell lead-acid batteries are allowed to sit around they will sulphate up in as short a time as 6 months. The sulphate builds up on the plates and separators. This product basically dissolves the sulphation. The product is so good that the manufacturer will extend the warranty on a new battery by a year if used when the battery is new.

- One bottle will do up to an N70Z size batteries (4WD, boat, truck etc).

MADE IN AUSTRALIA



	Cat.	Qty 1+	Qty 4+	Qty 10+
	NA-1420	$7.75	$6.75	$5.95

High Capacity Batteries

DEEP-CYCLE GEL CELL BATTERIES

Deep Cycle Batteries

These add genuine deep-cycle batteries to our already substantial range of batteries. As with all gel cells, they can be operated and charged in any position, are leakproof and completely sealed. Gel batteries are ideal for solar power, camping, 4WD, auxiliary applications and anywhere deep discharge and recovery is required. Three sizes available:

1 YEAR WARRANTY
LIMITED

SB-1699
12V 38AH

SB-1698
12V 26AH

SB-1695
12V 100AH

Check with our call centre for freight rates if you are a long way from our warehouse.

	SB-1698	SB-1699	SB-1695
Terminal voltage	12V	12V	12V
Nominal capacity	20 hour rate 26Ah	20 hour rate 38.8Ah	20 hour rate 100Ah
Capacity at 0°C	85%	86%	86%
Self discharge	9% after 3 months (residual capacity 91%)	9% after 3 months (residual capacity 91%)	9% after 3 months (residual capacity 91%)
Dimensions W x D x Hmm	165 x 172 x 110	197 x 165 x 170	330 x 173 x 223
Weight	8.35kg	13kg	31.5kg
Special Order	NO	NO	YES

	Cat.	Qty 1+	Qty 4+	Qty 10+
12V 26Ah	SB-1698	$129.00	$115.95	$102.95
12V 38Ah	SB-1699	$189.00	$169.95	$150.95
12V 100Ah	SB-1695	$379.00	$345.00	$305.00

POWERSTACK BATTERY BANKS (CONTINUED)

12V 150Ah Sleek AGM Deep Cycle Battery

This high performance deep cycle AGM battery offers an excellent power storage solution to those with minimal space. A high energy density and top grade materials allow such a high capacity of 150Ah to be packed into such a small footprint - just 123 x 556mm, suitable to fit into a standard 23" rack. Front terminal access makes battery connections neat and simple, and the durable carry handles allow for easier handling and inspection. Designed to perform in harsh tropical conditions, and with a superior high rate discharge performance and higher cycle service life, this battery is perfect for a wide array of applications including remote solar systems, caravan and RV, motor home, and marine. With a float voltage of 13.5V, this AGM battery is perfectly suited to caravans to make the most of charging off the engine alternator.
See our website for a full specification datasheet.

- Small footprint to suit installations in tight areas such as marine, caravans or motor homes
- Design Float life of 12+ years in accordance with Eurobat classification of long life battery
- Suitable for standard 23" rack
- Advanced AGM (absorbed glass matt) separator offering longer service life and superior high rate discharge performance
- Threaded post copper insert terminals offering high conductivity
- Fire retardant container and cover (UL40 - V0)
- Compliant to IEC 60896-21/22:2004 and UL approved

MORE INFORMATION...
NOTE: NOT STOCKED AT STORES BUT CAN BE ORDERED.

1 YEAR WARRANTY

Specifications	
Voltage	12V
Float voltage	13.5V
Boost voltage	13.8V
Capacity	150Ah (10hr rate), 164Ah (20hr rate)
Self-discharge	< 1% per week
Shelf life without re-charge	Up to 6 months
Operating temperature	-40°C to 60°C
Designs float life	12+ years at 27°C
Design cycle life	1800+ cycles @20%DOD 900+ cycles @50%DOD 500+ cycles @80%DOD
Dimensions / Weight	123(W) x 556(D) x 296(H)mm / 52Kg

Type	Cat.	Qty 1+	Qty 4+	Qty 10+
12VDC 150Ah	SB-1822	$699.00	$629.00	$559.00

BATTERY BANKS

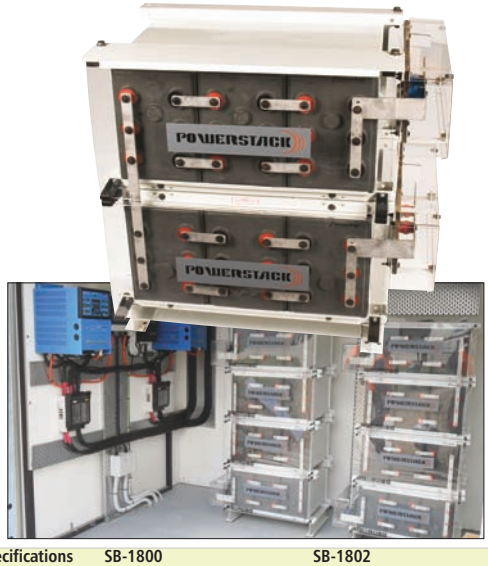
Powerstack High Performance VRLA Battery Banks with Racking

Making a substantial investment in a large renewable energy or remote power system means you should have the best battery technology available. Able to withstand deep discharge to 0% capacity for 1000 cycles, the Powerstack battery banks are the last word in genuine deep-cycle technology ensuring long service life. The modular, stackable rack design enables easy installation and offers complete flexibility for future system expansion. This racking is something that you just don't get with other deep cycle batteries, and makes such a difference to ease of use and flexibility of installation. This significantly reduces your installation costs as you don't have to go out and make your own rack for your battery bank - that's all done for you with the Powerstack.

Each Powerstack comes fully loaded with six 2V deep cycle valve regulated lead acid (VRLA) cells, and includes interconnecting busbars to connect up each cell to make the 12V bank. The construction of each cell is flame retardant copolymer casing with lead coated copper conductor terminals, the racking is steel painted in acid resistant paint, and all parts can be recycled. Suitable for mining, defence, UPS backup, transmission, telephony as well as high end alternative energy systems and remote area power systems.

Due to the size and weight of these very specialised units they will only be available for dispatch direct from our central warehouse in Sydney and Auckland. Freight will be additional - contact us for a quotation.

See our website for full specifications and downloadable datasheets.



- Modular stackable design
- Cycle life: 4000 cycles at 20% discharge, 1000 cycles at 100% discharge
- Self discharge: Less than 1% per week
- Design life: 20 years

MORE INFORMATION...
NOTE: NOT STOCKED AT STORES BUT CAN BE ORDERED.

1 YEAR WARRANTY

Specifications	SB-1800	SB-1802
Type	Valve Regulated Lead Acid deep-cycle battery	Valve Regulated Lead Acid deep-cycle battery
Rating	12V 600Ah	12V 1350Ah
Ah efficiency	>90%	>90%
Charging voltage	2.23 - 2.3V per cell	2.23 - 2.3V per cell
Charging current	60 - 120A	135 - 270A
Bank dimensions	706(W) x 477(H) x 550(D)mm	706(W) x 802(H) x 550(D)mm
Bank weight	260kg	530kg

Type	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 600Ah	SB-1800	$2,799.00	$2,519.00	$2,239.00
12V 1350Ah	SB-1802	$5,799.00	$5,219.00	$4,639.00

PETROL GENERATORS

Note: 2kW & 3kW not stocked in all stores. Please call ahead to check stock and order in.

NEW 2013

Sine Wave Inverter Generators

These units are petrol powered and differ from cheaper units, in that the engine (which is built to the same design as the market leading Japanese brands) drives a DC alternator. A pure sine wave inverter then converts the DC to a stable pure sine wave 230VAC, suitable for appliances including sensitive electronics.

No matter what the load is on the generator or the speed of the engine, the output remains very well regulated. The added benefit is that the petrol motor is far better matched to the load, reducing overall size, keeping engine speed in line with the load, reducing noise and increasing fuel efficiency. Additional features include electric key start, electric remote start, low oil cut-out, and overload circuit breaker, fuel indicator, oil alert system, circuit breaker without fuse & a circuit protector. Three models available:

		1kW MG-4501	2kW MG-4502	3kW MG-4504
Engine	Type	Forced air-cooled, 1 cylinder, 4-stroke, OHV Engine		
	Displacement	53cc	125cc	270cc
	Rated power output	1.2KW / 5000RPM	2.6KW/5000RPM	5.6kW/3600RPM
	Max. power output	1.4KW / 5500RPM	3.0KW/5500RPM	6.2kW/4200RPM
	Bore*Stroke(mm)	43.5 / 35.8mm	52.4 x 57.8mm	77 x 58mm
	Ignition system	T.D.I.	T.D.I	T.D.I
	Starting system	Recoil start	Recoil start/Electric/Remote	Recoil start/ Electric/Remote
	Fuel tank capacity	2.7L	7.0L	13L
	Fuel consumption	420g / kWh	400g/Kw/h	450g/kW/h
	Continous operating time	6 hours	6.5 hours	7 hours
	Noise (7m away) (No Load/Full Load)	58dBA/61dBA	58dBA/67dBA	66dBA/70dBA
Generator	Rated output frequency	50Hz	50Hz	50Hz
	Rated output voltage	230VAC	230V	230V
	D. C. Output	12V 5A	12V 8.3A	12V 8.3A
	Output sockets	1 x 15A (Aus type)	2 x 15A (AUS type)	2 x 15A (AUS type)
	Rated power output(KW)	0.85	2	3
	Max. power output(KW)	1.0	2.2	3.1
	Dimensions	440(L) x 235(W) x 380(H)mm	545(L) x 290(W) x 500(H)mm	600(L) x 510(W) x 565(H)mm
	Net weight	13kg	31kg	55kg

MG-4501

MG-4502

Not suitable for marine.

WATCH VIDEO

1 YEAR WARRANTY

MG-4504

WARNING!! These products are supplied without any oil in the sump. Oil MUST be filled prior to use. Refer to user manual.

Generators		Cat.	Qty 1+	Qty 2+	Qty 4+
1kW Sine Wave Generator	NEW	MG-4501	$599.00	$569.00	$539.00
2kW Sine Wave Generator		MG-4502	$899.00	$855.00	$809.00
3kW Sine Wave Generator		MG-4504	$1,499.00	$1,425.00	$1,349.00

Covers for Powertech Sine Wave Inverter Generators

NEW 2013

Protect your valuable inverter generator from dust and moisture during transport or storage with these handy spray covers. Manufactured from woven nylon fabric with sizes available to suit each of the generators in our range the covers will protect against water spray and prevent build-up of dust and dirt. Each cover is cut to fit neatly over the generator and has an elastic band at the base to hold it snugly in place.

NOTE: Cover must be removed when generator is operational. Covering generator while it is operational can cause a fire or result in damage to the generator.

Generator Covers	Cat.	Qty 1+	Qty 2+	Qty 4+
Cover to suit MG-4501	MG-4516	$24.95	$23.70	$22.35
Cover to suit MG-4502	MG-4517	$29.95	$28.45	$26.90
Cover to suit MG-4504	MG-4518	$34.95	$32.95	$31.45

MG-4516

Spare Parts for Powertech Sine Wave Inverter Generators

Spare Parts	Cat.	Qty 1+	Qty 2+	Qty 4+
Oil Dipstick to suit MG-4501	MG-4610	$9.95	$9.25	$8.75
Air Filter Assy to suit MG-4501	MG-4611	$14.95	$13.95	$13.35
Carby Assy to suit MG-4501	MG-4612	$39.95	$37.90	$35.90
Oil Dipstick to suit MG-4502	MG-4613	$9.95	$9.25	$8.75
Carby Assy to suit MG-4502	MG-4614	$84.95	$80.50	$76.50
Air Filter Assy to suit MG-4502	MG-4615	$44.95	$42.90	$40.45
Start Battery to suit MG-4502	MG-4616	$39.95	$37.90	$35.90
Oil Dipstick to suit MG-4504	MG-4617	$9.95	$9.25	$8.75
Air Filter Assy to suit MG-4504	MG-4618	$29.95	$28.45	$26.90
Carby Assy to suit MG-4504	MG-4619	$64.95	$61.50	$58.50
Start Battery to suit MG-4504	MG-4620	$49.95	$47.45	$44.90

TECH TIP

Looking for Wind Turbine spare parts?

See our website for spare parts to suit discontinued wind turbines.

TECH TIP

Why you should not buy Petrol Generators from the internet.

There are many reasons for buying on the internet, price being the main one. Most people who sell things on the internet are good, reputable people. The nature of internet business, however, is that you see new things all the time, then they get replaced by other new things. Fine if you are buying shoes or a book but not so fine if you are buying a complex piece of machinery. You can buy a similar, (we think inferior,) one of these generators on the internet for a fair bit less than our price. Or you can buy a brand-name one for about two and a half times what we charge. Over the useful lifetime of the product, say 5-10 years, you will probably need a spare mechanical part. In all likelihood if you buy the internet generator you will have absolutely no chance of spare parts backup. If you buy the name-brand product you will be supported with spare parts from their spare parts backup, probably through Aust/NZ wide dealers. If you buy the Jaycar generator you will get the same thing. Think about it.

Solar Panels

SOLAR PANELS - AMORPHOUS

In the past, amorphous solar panels have been labelled as the cheap alternative for an installation where long service life is not important - however that is about to change. Recent years have seen vast improvements in thin-film solar technology, especially with amorphous silicon based solar panels, and we are now bringing those improvements to you with our updated range of amorphous solar panels. Whilst these panels might look the same as any other amorphous panel, the difference lies within the visual exterior. On top of the features our amorphous panels have always had, they now boast dual-junction amorphous silicon with laser edged isolation construction. What does that mean? It means that along with a small improvement in output efficiency they also have big improvements in the life expectancy of the panel - they will maintain above 80% of their original rated power for 20 years. That's about as good as a polycrystalline or monocrystaline solar panel.

Beware of cheaper amorphous panels which don't offer these features, as their performance will surely degrade much faster and they will usually perform below their rated specification.

SO WHY WOULD YOU CHOSE AMORPHOUS PANELS?

Solar Panel Type	Size per Watt	Output under cloudy conditions	Power Decrease due to Heat
Amorphous	Bigger (2-3 times)	Yes - and for longer hours each day	-0.19% / °C (less power decrease)
Crystalline	Smaller	No - output drops significantly in cloudy conditions	-0.47% / °C

MORE INFORMATION...
Includes protective plastic corners and battery clips

What's the catch?

If you think that amorphous is too good to be true take a close look at their size. The big downside to amorphous is that to get the same power as poly or monocrystalline you need 2-3 times the surface area. This may or may not be a problem. On a yacht, yes, but on a farm probably no.

Cat. ZM-9020

Cat. ZM-9024

Cat. ZM-9026

1 WATT TO 4 WATT PANELS

Specification	ZM-9020	ZM-9024	ZM-9026
Maximum power	1W	2W	4W
Rated voltage	6V	12V	12V
Voltage (@ Pmax)	7V	17.5V	17.5V
Current (@Pmax)	143mA	115mA	286mA
Short circuit current	150mA	150mA	450mA
Open circuit voltage	11V	21V	21V
Dimensions	162 x 162 x 22mm	160 x 313 x 22mm	330 x 330 x 22mm
Weight	0.65kg	1.0kg	2.32kg
Warranty	5 year	5 year	5 year

Voltage	Wattage	Cat.	Qty 1+	Qty 2+	Qty 4+
6V	1W	ZM-9020	$19.95	$18.70	$17.70
12V	2W	ZM-9024	$29.95	$28.45	$26.90
12V	4W	ZM-9026	$49.95	$47.45	$44.90

10 WATT TO 15 WATT PANELS

Specification	ZM-9030	ZM-9045
Maximum power	10W	15W
Rated voltage	12V	12V
Voltage (@ Pmax)	17.5V	17.5V
Current (@Pmax)	572mA	858mA
Short circuit current	950mA	1200mA
Open circuit voltage	21V	23V
Dimensions	923 x 313 x 22mm	973 x 343 x 18mm
Weight	4.5kg	4.5kg
Warranty	5 year	5 year

NEW LOWER PRICE

5 YEAR WARRANTY

Voltage	Wattage	Cat.	Qty 1+	Qty 2+	Qty 4+
12V	10W	ZM-9030	$69.95	$66.50	$62.95
12V	15W	ZM-9045	$89.00		

Weatherproof Amorphous Solar Panel - 15 Watt

Keep your batteries charged, or recharge them after powering lights and appliances the night before. It's an amorphous type panel, capable of supplying current up to 1 amp, suited to a wide range of charging applications, and even powering small 12V appliances. The 3.5 metre lead has a plug on the end, to which you can connect the supplied leads.

These are 300mm leads to alligator clips, a cigarette lighter plug, and eye terminals. A bright blue LED indicates the panel is working, and the strong ABS frame can be bolted down for mounting.

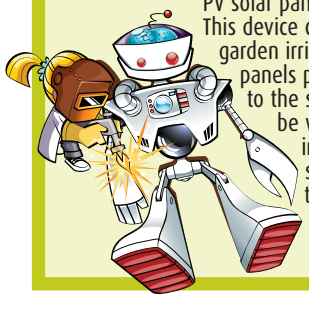
- Measures 950(L) x 340(W) x 18(H)mm.

Voltage	Power	Cat.	Qty 1+
12V	15W	ZM-9045	$89.00

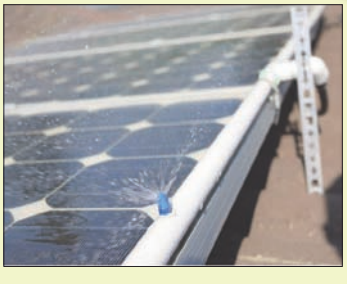
NEW LOWER PRICE

Photovoltaic Solar Panel Cooler For Increased Output

Makers Name: Michael Porter **Location: Victoria**



PV solar panels produce more electricity when cooled. This device cools the panels using electrically-controlled garden irrigation water sprays. When cooling, the panels produce around 20% more power compared to the same conditions without cooling. It would be wasteful to run the water continually, so instead, a microcontroller is used with sensors measuring the panel and ambient temperatures to only use water when needed.



For more details scan the QR code or go to www.jaycar.com.au/makers

SOLAR PANELS - MONOCRYSTALLINE

POWERTECH

5 Watt to 200 Watt Panels

These quality Powertech monocrystalline solar panels offer you the same robust construction and performance as the leading brand names, whilst also offering a nice cost saving. Despite being manufactured in China, they are definitely suitable for harsh Australian conditions.

Our Powertech solar panels are among the best to come out of Asia, and we are not alone in our beliefs! Our supplier has been producing solar panels for the large European market for several years, including manufacturing the panels for a 100kW solar plant in Greece & a 300kW solar plant in Spain.

When we visited their factory we were amazed at the high level of quality control. Each individual cell is tested and measured before assembling the panel, and then each and every panel is tested and measured to IEC standards before shipping them out. Unlike most of the Asian solar panel suppliers, our factory actually performs the silicon doping process in-house, which provides further quality control over the end product as they are in control of the whole process from start to finish.

Each panel is also uniquely identified with a barcode serial number for traceability and warranty purposes, and the test results for each panel are logged with that serial number - so you can rest assured our factory means to ensure they supply a quality product and will stand by their claims of performance with our 25 year limited warranty.

25 year limited warranty

All Powertech monocrystalline solar panels are covered by a 25 year limited warranty. This warranty covers the panels for defects in construction and manufacturing for a period of 5 years, and warrants that the electrical output will remain above 80% of its original rated output for a period of 25 years.

We will not be undersold on quality panels!

NEW LOWER PRICE

25 YEAR WARRANTY LIMITED

5 WATT TO 40 WATT PANELS

Cat.	ZM-9091	ZM-9093	ZM-9094	ZM-9095
Maximum power	5W	10W	20W	40W
Rated voltage	12V	12V	12V	12V
Open circuit voltage	21V	21.5V	21.5V	21.4V
Short circuit current	380mA	680mA	1.3A	2.56A
Voltage at max power	16.8V	17V	17.2V	17.1V
Current at max power	300mA	590mA	1.17A	2.34A
Dimensions	295 x 255 x 23mm	396 x 289 x 23mm	639 x 294 x 23mm	545 x 645 x 23mm
Weight	0.8kg	1.4kg	2.4kg	4.0kg

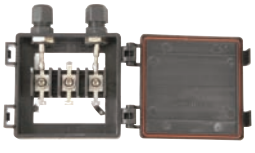
Voltage	Wattage	Cat.	Qty 1+	Qty 2+	Qty 4+
12V	5W	ZM-9091	$22.95	$21.70	$20.35
12V	10W	ZM-9093	$39.95	$37.90	$35.90
12V	20W	ZM-9094	$79.95	$75.95	$71.95
12V	40W	ZM-9095	$149.00	$141.95	$133.95

80 WATT TO 200 WATT PANELS

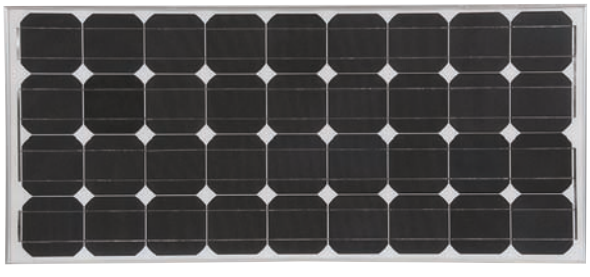
Cat.	ZM-9097	ZM-9086	ZM-9098	ZM-9088
Maximum power	80W	90W	120W	200W
Rated voltage	12V	12V	12V	24V
Open circuit voltage	21.8V	22.2V	21.8V	45.3V
Short circuit current	5.23A	5.39A	7.14A	6.15A
Voltage at max power	17.6V	18V	17.8V	37.8V
Current at max power	4.55A	5A	6.74A	5.31A
Dimensions	1200 x 540 x 28mm	1200 x 540 x 28mm	1250 x 808 x 35mm	1580 x 808 x 35mm
Weight	8.2kg	8.2kg	12kg	15.5kg

NOTE: Our ZM-9088 (200W) panels are listed as approved modules by the Clean Energy council under the factory's brand "Zhejiang Sopray", model SR-200. The Powertech brand is used for marketing purposes only.

The larger (80W and above) panels are fitted with a TUV approved waterproof junction box with cable glands. They have short UV stabilised output cables and bypass diodes included.



*Our 200 watt panel (ZM-9088) has the required IEC certificates for the Australian Solar Rebate Scheme



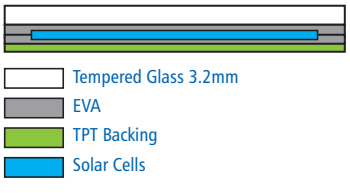
Voltage	Wattage	Cat.	Qty 1+	Qty 4+
12V	80W	ZM-9097	$249.00	$235.00
12V	90W	ZM-9086	$279.00	$265.00
12V	120W	ZM-9098	$369.00	$345.00
24V	200W	ZM-9088	$599.00	$565.00

NEW LOWER PRICE

CONSTRUCTION:

Each panel is made by connecting up an array of hand picked individual silicon solar cells to match the power specification of the panel. The array of cells is then laid between two sheets of Ethylene Vinyl Avetate (EVA), fronted by a sheet of 3.2mm thick high-transmissivity low-iron tempered glass and backed by a sheet of Tedlar-polyester-tedlar (TPT) material.

This sandwich of materials (TEMPERED GLASS-EVA-solar cells-EVA-TPT) is then heat laminated together to permanently protect against moisture penetrating into the cells. Once laminated, the panel is then assembled with the extruded aluminium frame and sealant applied in the edges to further protect against moisture penetration.



25 YEAR WARRANTY LIMITED

Solar Panel Hardware

RECREATIONAL SOLAR PANEL MOUNTING HARDWARE

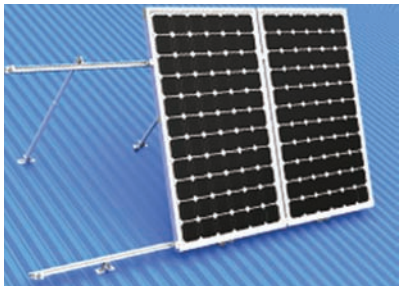
Ecotech Professional Solar Mounting Hardware

A universal and code compliant mounting system for attaching solar panels to the roof of your property. Designed to be used with either tiled or tin roofs, with any slope from 0-60° (either flat or pitched), and fully cyclone rated even for wind region D. The easy insertion modules mean that you don't have to slide each attachment along the rail to get it in place, they slot in quite easily at the very spot you want to attach them. For use with 35mm thick modules, a full range of components are available.

- Cyclone proof to Wind Region D (installation guide must be strictly adhered to)
- Vertical or horizontal panel mounting
- Suits any solar panel width, but optimised for 800-825mm width
- Suitable for aluminium framed panels
- 10 year materials warranty
- AS/NZS 1170 approved
- Roof slope: up to 60°
- Wind load: 80m/s
- Snow load: 1.4kNm²

Note: not available at all stores but can be ordered

Corrugated Iron Roof



Corrugated Iron Roof

RAILS & SPLICES

	Cat.	Qty 1+	Qty 4+	Qty 10+
2560mm Solar Panel Rail 3PV	HS-8800	$49.95	$44.90	$39.90
3405mm Solar Ecotech Rail	HS-8801	$69.95	$62.95	$55.95
4200mm Solar Ecotech Rail	HS-8802	$84.95	$76.50	$67.95
Solar Panel Mounting Rail Splice	HS-8803	$9.95	$8.75	$7.75

CLAMPS, HOOKS & LEGS

	Cat.	Qty 1+	Qty 4+	Qty 10+
Solar Panel Rail End Clamp 35mm	HS-8804	$3.95	$3.45	$3.15
Solar Panel Rail Mid Clamp 35mm	HS-8805	$3.95	$3.45	$3.15
Solar Panel Tile Roof Hook	HS-8806	$26.95	$23.95	$21.35
Solar Panel Tin Roof Hook	HS-8807	$8.95	$7.95	$6.95
Solar Panel Adjacent Front Leg Tilt	HS-8810	$15.95	$14.35	$12.70
Solar Panel Mounting Back Leg 10-15°	HS-8811	$39.95	$35.90	$31.90
Solar Panel Mounting Back Leg 15-30°	HS-8812	$49.95	$44.90	$39.90
Solar Panel Mounting Back Leg 30-60°	HS-8813	$59.95	$53.95	$47.90

Universal Individual Solar Panel Mounting Bracket

Designed for mounting solar panels individually to a fixed surface, such as the roof of a caravan, motor home, shed, or any number of other applications. Not only do these brackets provide secure and easy mounting, but they also space the panel up to provide necessary airflow. Each bracket includes a stainless steel M6 bolt and nut to attach it to the factory holes in the aluminium frame of your solar panel, meaning that no drilling or modification is required. Sold individually, so you just have to purchase the quantity that suits your panel and application.

- Made from 6061 aluminium alloy
- Recommended quantity for panels up to 40W: 4
- Recommended quantity for panels 40W-200W: 6
- Spacing from mounting surface: 22mm
- Dimensions: 80(L) x 68(W) x 35(H)mm

Note: Solar panel not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	HS-8780	$7.95	$6.95	$6.25

For Smaller Systems

In response to requests from customers, we've arrived at a range of mounting hardware that is adaptable and modular to fit most applications - extruded mounting rails, brackets and joiners.

We have two sizes of durable extruded aluminium mounting rails that can be mixed and matched to fit virtually any size solar panel with slots that accommodate mounting brackets. There are 1m and 2m sizes available and you can join them together to extend as far as you need to:

SOLAR PANEL ALUMINIUM EXTRUDED RAIL 1M	HS-8702
SOLAR PANEL ALUMINIUM EXTRUDED RAIL 2M	HS-8700
JOINER BRACKET 80MM	HS-8714

L-BRACKETS TO MOUNT THE RAILS TO THE ROOF.

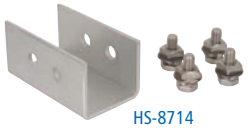
L-TYPE BRACKET PKT 2	HS-8704

Brackets to clamp your panels onto the rails. These come in two different sizes and two different types - 28mm for 65 and 80 watt panels, and 35mm for 120 and 175 watt panels; Z-type for clamping the end of each panel and T-type for clamping between two panels:

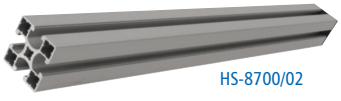
Z-TYPE 28MM BRACKET PKT 4	HS-8706
Z-TYPE 35MM BRACKET PKT 4	HS-8708
T-TYPE 28MM BRACKET PKT 2	HS-8710
T-TYPE 35MM BRACKET PKT 2	HS-8712

HS-8712 / HS-8710

HS-8708 / HS-8706



HS-8714



HS-8700/02

HS-8704

RAILS & BRACKETS

	Cat.	Qty 1+	Qty 4+	Qty 10+
Aluminium Extruded Rail 1m	HS-8702	$39.95	$35.90	$31.90
Aluminium Extruded Rail 2m	HS-8700	$69.95	$62.95	$55.95
L-Type Bracket Pkt 2	HS-8704	$34.95	$31.45	$27.90
Z-Type 28mm Bracket Ptk 4	HS-8706	$79.95	$71.95	$63.95
Z-Type 35mm Bracket Pkt 4	HS-8708	$79.95	$71.95	$63.95
T-Type 28mm Bracket Pkt 2	HS-8710	$39.95	$35.90	$31.90
T-Type 35mm Bracket Pkt 2	HS-8712	$39.95	$35.90	$31.90
Joiner Bracket 80mm	HS-8714	$19.95	$17.70	$15.70

Aluminium Solar Panel Angle Mounting Bracket

NEW 2013

An ideal solution for mounting a single solar panel to any number of various applications, allowing you to tilt the panel to your desired angle and easily fold it back down again when not in use. Fantastic for caravan, RV, campervan, marine or other applications. Holes are pre-drilled to line up with common panel sizes such as 80W saving you time and effort in mating your panel to the bracket. Supplied with full stainless steel hardware.

- Dimensions: 670(L) x 30(W) x 60(H)mm, folded

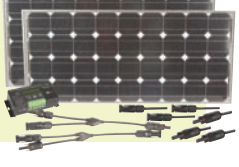
Note: Solar Panel not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pair	HS-8785	$59.95	$53.95	$47.90

TECH TIP!

Check out our RECREATIONAL SOLAR PACKAGES on pages 274 to 276 in the AUTO - OUTDOORS SECTION

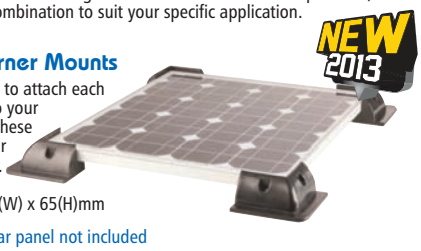


ABS Solar Panel Mounts for Caravan/Marine

Attaching solar panels to the roof of your caravan or the deck of your boat may sound like a relatively straight forward procedure - if you are happy to drill holes. If you've just sunk tens of thousands of dollars into your caravan or boat, that's probably the last thing you want to do, which is why we have introduced this range of ABS solar panel mounts. Quite simply, you stick these heavy duty ABS plastic mounts onto your caravan or boat using Sikaflex®, and then screw your panel onto the mount. The solar panel is kept with adequate space underneath for cooling, and the curved design ensures adequate wind deflection for high winds. There are 4 different products, which can be used in any combination to suit your specific application.

ABS Solar Panel Corner Mounts

A set of four corner mounts, to attach each corner of your solar panel to your desired mounting surface. These can be used on their own for solar panels 40W or smaller.



- Dimensions: 150(L) x 150(W) x 65(H)mm

Note: Solar panel not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
Set of 4	HS-8850	$49.95	$44.90	$39.91

ABS Solar Panel Side Mounts 180mm

This pair of side mounts are intended to be attached to the long edge of taller solar panels, such as 80W and above, adding extra mounting strength and giving more wind deflection.

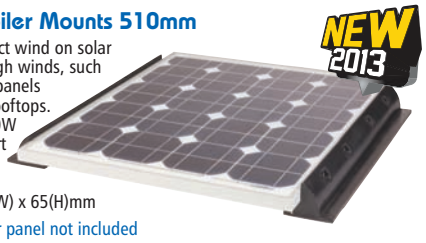
- Dimensions: 180(L) x 120(W) x 65(H)mm

Note: Solar panel not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pair	HS-8852	$29.95	$26.90	$23.70

ABS Solar Panel Spoiler Mounts 510mm

Specifically designed to deflect wind on solar panel edges that face into high winds, such as the leading edge of solar panels mounted on caravan or RV rooftops. Well matched to 80W and 90W panels oriented with the short edge leading into the wind.



- Dimensions: 510(L) x 120(W) x 65(H)mm

Note: Solar panel not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pair	HS-8854	$59.95	$53.95	$47.90

ABS Solar Cable Entry Point

Usually, at some point the solar power cables need to enter into the caravan or boat and down to the battery area. To avoid making unsightly and potentially leaky cable entries, you can use this neat product and drill out your cable entry point, and then cover it over giving you two fully waterproof cable gland cable entries that look neat and purpose built.

- IP67 cable glands included.
- Dimensions: 100(L) x 90(W) x 45(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
Each	HS-8856	$24.95	$22.35	$19.70

SOLAR SYSTEM CABLE

UV Stabilised Solar Power Cable — 100 metre roll

Very tough cable, specifically for the rigours of outdoor use in solar panel installations. Dust, age and UV resistant, tinned copper conductors to minimise corrosion. Use with our PV connectors for complete environmental protection.

	Cat. No	Dia(mm)	Rated current(A):
Three types available:	WH-3120	2.5mm sq.	42A
	WH-3121	4mm sq.	58A
	WH-3122	6mm sq.	76A
Conductor material:	Tin plate copper, Class 5		
Insulation material:	XLPO		
Rated voltage:	1000VDC		
Temperature range:	-40 to - 125°C		
TUV certification:	2 PfG 1161/01.06		
IP65 rated			

TÜV CERTIFIED

	Cat.	1+ Metre	1+ Rolls	5+ Rolls
2.5mm²	WH-3120	$3.00	$250.00	$225.00
4.0mm²	WH-3121	$3.50	$295.00	$265.00
6.0mm²	WH-3122	$5.50	$460.00	$415.00

Waterproof Solar Power "PV" Connectors

IP67 rated for maximum environmental protection, these photovoltaic (PV) system connectors are ideally suited to harsh installations such as solar panel arrays and other permanent outdoor applications. When matched with our solar power cables WH-3120 and WH-3122, you can leave your cabling out in the open with the knowledge that you will never have a bad connection or an oxidised power cable. Both panel mounting and in-line connectors are available to suit a wide range of system applications:

Assembly Tool: TH-1930
Suitable crimping tools: TH-1834/TH-1950

- Pin dimension 4mm
- Tin plated copper contacts
- Contact resistance <5mΩ
- IP67 rated
- -40°C to +90°C
- Housing material PPO
- TUV certified

Specifications	
Rated voltage	1000VDC
Rated current	30A at 70°C, 25A at 85°C
Contact resistance	<5 milliohms
Temperature range	-40 - 90°C
TUV certification	2 PfG 1161/01.06

	Size	Cat.	Qty 1+	Qty 10+	Qty 50+
	Female Inline	PS-5100	$7.50	$6.75	$5.95
	Male Inline	PP-5102	$7.50	$6.75	$5.95
	Female Panel Mount	PS-5104	$7.50	$6.75	$5.95
	Male Panel Mount	PP-5106	$7.50	$6.75	$5.95

Self Crimping Solar Power Connectors

These high quality connectors are designed for use with solar systems and feature a unique cable connection method which does not require a crimping tool. The spring cage connection attaches to your stripped solar cable as you assemble the cable insert allowing you to quickly attach the connectors without needing to carry a specialty crimping tool. The spring cage also makes these connectors suitable for use with most common sizes of low loss solar cable including our 2.5, 4, and 6mm² cables. They are made from UV resistant plastic with an IP67 environment rated and have silver plated contacts giving excellent corrosion resistance.

- Contact material: Silver plated copper
- Cable connection: Tool free spring cage
- Strip length for connection: 15mm
- Current rating: 40A
- Voltage rating: 1100V
- Cable size: 2.5 to 6mm²
- Cable insert diameter: 5 to 8 mm

	Cat.	Qty 1+	Qty 10+	Qty 50+
Spring Cage Solar PV Socket	PS-5120	$9.95	$8.75	$7.75
Spring Cage Solar PV Plug	PP-5122	$9.95	$8.75	$7.75

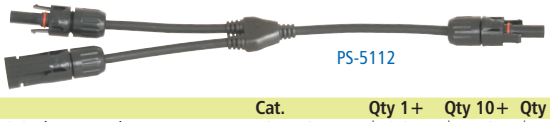
Solar Panel 'Y' Leads

Used for connecting the output of two solar panels in parallel or connecting multiple panels in an array. Waterproof and UV resistant.

- Pin dimension 4mm
- Contact resistance <5m ohm
- -40°C to +90°C
- TUV certified.
- Tin plated copper contacts
- IP67 rated
- Housing material PPO
- Both are 300mm long.

2 SOCKETS TO 1 PLUG Generally used on the positive pole of the panel.

2 PLUGS TO 1 SOCKET Generally used on the negative pole of the panel.



	Cat.	Qty 1+	Qty 10+	Qty 50+
2 Sockets to 1 Plug	PS-5110	$19.95	$17.70	$15.70
2 Plugs to 1 Socket	PS-5112	$19.95	$17.70	$15.70

Solar Panel Power Management

CIRCUIT PROTECTION FOR PV APPLICATIONS

DIN Rail Mounting AC Circuit Breakers

DIN rail mounted circuit breakers for domestic and commercial switchboards, fuse boxes, distribution boards etc.

- Standard DIN profile.
- Electrical safety authority approved.

NOTE! 240VAC

NEW LOWER PRICE

240VAC		Cat.	Qty 1+	Qty 4+	Qty 10+
Single Pole - 10A	240VAC	SF-4150	$4.95	$4.45	$3.90
Single Pole - 16A	240VAC	SF-4151	$4.95	$4.45	$3.90
Single Pole - 20A	240VAC	SF-4152	$4.95	$4.45	$3.90
Single Pole - 32A	240VAC	SF-4153	$4.95	$4.45	$3.90

Non-Polarised DC Micro Circuit Breakers (MCBs)

NEW 2013

Under the latest revision of the standards for solar installations that are now in effect, AS/NZS 5033:2012, over current protection for solar PV arrays must use non-polarised DC circuit breakers. These 2-pole non-polarised DC breakers meet the requirements of the standard by complying to IEC 60947-2. Available in 10A, 16A or 20A current rating, with the 10A version rated at 550VDC and the 16A & 20A versions rated at 1000VDC.

		Cat.	Qty 1+	Qty 4+	Qty 10+
2 Pole - 10A	550VDC	SF-4154	$32.95	$29.45	$26.45
2 Pole - 16A	1000VDC	SF-4157	$39.95	$35.90	$31.90
2 Pole - 20A	1000VDC	SF-4159	$39.95	$35.90	$31.90

DIN Rail Mount 2 Pole DC Circuit Breakers

DC circuit breakers, ideal for solar installations, marine, RV etc.

- Rated for 500VDC.
- Standard DIN profile.
- Electrical safety authority approved.

500VDC		Cat.	Qty 1+	Qty 4+	Qty 10+
2 Pole - 16 Amp	500VDC	SF-4155	$24.95	$22.35	$19.70
2 Pole - 20 Amp	500VDC	SF-4156	$24.95	$22.35	$19.70

4 Way Lockable IP66 Circuit Breaker Enclosure

Designed to take the range of DIN rail circuit breakers. Standard 4-pole ABS enclosure, spring loaded clear front cover with padlock tabs, top, bottom and rear cable entry, DIN rail included, sealed to IP66. Suitable for electrical installations or solar applications.

NEW LOWER PRICE

- Dimensions: 96(W) x 195(H) x 98(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	SF-4158	$29.95	$26.90	$23.70

Fuse Holder/Disconnector for HRC Fuses (NT00)

NEW 2013

This high powered 3 pole fuse link holder is ideal for use to protect high current applications used in modern solar/inverter installations.

The fuse holder supports up to 3x fuse links of up to 160A each (sold separately). Features a pull down knife switch disconnection handle so system can be shut down quickly if the need arises.

- Suits NT00 size low voltage high rupture capacity (HRC) fuse links.

Specifications	
Rated insulation voltage (AC)	690V
Rated insulation voltage (DC)	250V
Current (max)	160A (per circuit)
Dimensions	105(W) x 200(H) x 83(D)mm

SF-4166

Note: Fuses not stocked at all stores. Call ahead to check and order in.

	Cat.	Qty 1+	Qty 10+	Qty 25+
Fuse Holder	SF-4160	$79.95	$71.95	$63.95
50A HRC Fuse	SF-4162	$4.95	$4.45	$3.90
80A HRC Fuse	SF-4164	$4.95	$4.45	$3.90
125A HFC Fuse	SF-4166	$4.95	$4.45	$3.90

Fuse Holder/Disconnector for HRC Fuses (NT1)

NEW 2013

A high current 3 pole fuse link holder ideal for use in high current applications such as solar, battery and inverter installations. The fuse holder supports up to 3x fuse links of up to 250A each, sold separately. Features a pull down knife switch disconnection handle so system can be shut down quickly if the need arises.

- Suits NT1 size low voltage high rupture capacity (HRC) fuse links.

Specifications	
Rated insulation voltage (AC)	690V
Rated insulation voltage (DC)	250V
Current (max)	250A (per circuit)
Dimensions	185(W) x 245(H) x 110(D)mm

Note: Fuses not stocked at all stores. Call ahead to check and order in.

	Cat.	Qty 1+	Qty 10+	Qty 25+
Fuse Holder	SF-4170	$129.00	$115.95	$102.95
250A NT1 HRC Fuse	SF-4172	$7.95	$6.95	$6.25

Ultra High Current Fuses

Littelfuse® patented technology designed for high current protection, found OEM on Ford, GM and Chrysler vehicles. Slo-Blo® feature eliminates nuisance blowing during temporary, short duration overloads. Commonly used for battery and alternator connections and other heavy gauge cables requiring ultra high current protection.

- SF-1982 and SF-1984 are slow blow fuses
- SF-1986 is a short-circuit protection device
- Rated up to 32V AC or DC.
- Terminal studs 8mm.

HIGH CURRENT FUSE HOLDER	Cat SF-1980
BOLT-DOWN FUSE 125A	Cat SF-1982
BOLT-DOWN FUSE 250A	Cat SF-1984
BOLT-DOWN FUSE 500A (SHORT CIRCUIT PROTECTOR)	Cat SF-1986

	Cat.	Qty 1+	Qty 10+	Qty 25+
Fuse Holder	SF-1980	$19.95	$17.70	$15.70
Bolt Down Fuse - 125A	SF-1982	$9.95	$8.75	$7.75
Bolt Down Fuse - 250A	SF-1984	$9.95	$8.75	$7.75
Bolt Down Fuse - 500A	SF-1986	$9.95	$8.75	$7.75

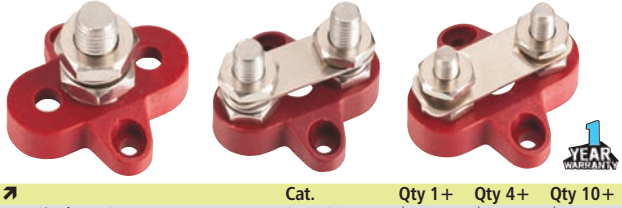
Stainless Steel Power Distribution Posts

NEW 2013

Heavy duty stainless steel posts mounted on a moulded plastic base. Three versions available with single connection or dual post with bridging plate to suit a variety of power distribution applications.

- Mounting hole diameter: 4.5mm
- Mounting hole spacing: 36mm between centres
- Dimensions: 45(W) x 43(L) x 35(H)mm

DO NOT USE FOR 240V



1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Single M10	SZ-2090	$9.95	$8.75	$7.75
Twin M8	SZ-2092	$9.95	$8.75	$7.75
Twin M6	SZ-2094	$9.95	$8.75	$7.75

DO A FRIEND A FAVOUR

If you have a technical friend or someone who may be just interested in some of the products we stock, simply mail or email his or her address to:

Catalogue Department
Jaycar Electronics: PO Box 7172
Silverwater, NSW 1811 or email
to catalogue@jaycar.com

SOLAR REGULATORS / CHARGE CONTROLLERS

12V 5A Battery Charging Regulator for Solar Panels

Designed for efficiently charging 12V batteries using solar cells rated up to 5 amps. It is easy to wire up, prevents battery discharge during low sunlight and indicates charging and full battery conditions using a yellow and green 3mm LED. Ideal for charging 12V SLA batteries from solar panels up to 60 watts. 5 amp fuse and fuse holder recommended - not supplied.

Specifications	
Input	14 to 22V (open circuit voltage), nominal 12V
Max. input current	5A
Inrush voltage	battery voltage < approx. 13.2V
Interrupting voltage	battery voltage > approx. 13.9V
Own power consumption	<3.9mA (LED's on)
Dimensions	72(W) x 50(D) x 43(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 5A	AA-0348	$29.95	$26.90	$23.70

Pool Controller

Makers Name: Craig Leydon
Location: New South Wales

I recently moved into a new house with a pool. Everything was great except for one thing, the pool pump and filter were in a difficult to reach area of the yard, and it took a minute or 2 to get to the pump from the pool, which can be a major pain especially if you are trying to clean the pool and you want to quickly shut the pump off while you have your hands in the pool fiddling with the pool cleaner or adding chemicals. Well it was enough of an excuse to come up with a solution that I would have fun building anyway. It consists of 2 parts. The master controller, which sits in at the pump and filter, and also the slave unit which is mounted right next to the pool skimmer box.

For more details scan the QR code or go to www.jaycar.com.au/makers

12V 8A Water Resistant PWM Solar Charge Controller

Suitable for both wet-cell and sealed lead-acid batteries and uses pulse width modulation for optimal 3-stage charging. It is compatible with all types of solar arrays and is potted in epoxy resin making it water resistance and suitable for use in areas of high humidity, such as outdoor or mounted to the back of a solar panel. The controller also features a "night light" load output which will automatically connect the load during the evening and disconnect it during the daytime, which also has low-voltage disconnect/re-connect protection. Reverse current flowing through the solar array is automatically blocked in this unit which removes the requirement for a separate blocking diode, and different charge voltages are selectable for wet or sealed type lead-acid batteries. Over current, over voltage, short circuit, over temperature and reverse polarity protections also featured. Full specs available on our website.

Specifications	
Max PV open circuit voltage	26VDC
Max PV short circuit current	10A
Battery voltage	12VDC
Rated PV input current	8A (10A max)
Load voltage	12VDC
Rated load current	8 amps (10A max)
SLA charging voltage	14.5VDC
Wet cell charging voltage	14.8VDC
Float voltage	13.8VDC
Standby current consumption	7mA
Dimensions	97(L) x 46(W) x 26(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 8A	MP-3720	$49.95	$44.90	$39.90

12V 20A Super Solar Panel Regulator

With a massive 20 amp current handling, this switching solar panel regulator is lightweight, easy to install and does not require a heatsink. It installs easily and features automatic operation, LED power indication and boasts an efficiency up to 99.2% @ 20 amps. Not only does the regulator switch the solar panel in and out depending on the battery voltage, the regulator will disconnect the solar panel after approx 20 minutes at night fall to prevent any losses into the panel overnight. Completely Automatic.

MADE IN AUSTRALIA

- Battery or solar Power LED indication
- Suitable for 1 to 20 amps
- Handles open circuit panel voltages 30 Volts
- Reverse Polarity Protected

Specifications	
Terminals	6.4mm spade lug
Efficiency	97.0% @ 5 amps, 98.5% @ 10 amps, 99.2% @ 20 amps
Weight	65 grams
Measures	66(L) x 51(W) x 34(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
12V 20A	MP-3126	$79.95	$75.95	$71.95

Solar Charge Controllers

You make a substantial investment in a solar power setup, so make sure you look after your expensive batteries. With these charge controllers, you have total control over battery charging and power usage. The LCD shows the system status and LEDs at a glance show battery charge status, load status and solar panel connection. They also have features like microprocessor control, programmed with 3-stage charging algorithms and pulse width modulation duty cycles of 0 - 100% to provide optimum charge conditions and battery life. 12V and 24V models available.

- User-adjustable charging voltages
- Suitable for wet or sealed lead-acid, lead calcium, lead antimony, Ni-Cd or NiFe batteries
- Microprocessor control PWM (Pulse Width Modulation) for optimum charging
- 3-stage, bulk, absorption and float charge modes with status on LCD
- Amp-hour logging readouts in 3 sets, today and last 2 days
- 5-state LED indications of battery levels
- Electronic overcharge protection and back current blocking to panel
- Dusk to dawn automatic on-off with 10 selectable on-off programs
- Adjustable battery low voltage level disconnect and reconnect for DC outputs
- System status display: charge current, battery voltage and capacity
- Overload and short circuit protection
- Over voltage and reverse polarity protection

Three models in this range:

		Cat.	Qty 1+	Qty 2+	Qty 4+
12V	20A	MP-3129	$149.00	$133.95	$118.95
12V	30A	MP-3722	$179.00	$160.95	$142.95
24V	20A	MP-3724	$179.00	$160.95	$142.95

WATCH VIDEO

TECH TIP!

Refer to YouTube video SBC7120 for Installation Information

Specification	MP-3129	MP-3722	MP-3724
Rated charge/load current	20A	30A	20A
System voltage	12V	12V	24V
Dimensions	150(W) x 85(D) x 45(H)mm	150(L) x 85(W) x 50(H)mm	150(L) x 85(W) x 50(H)mm

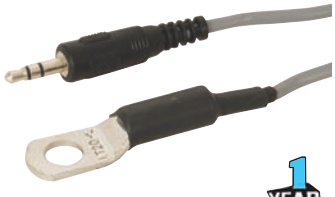
1 YEAR WARRANTY

Battery Temperature Sensor for Solar Charge Controllers

Designed to compensate the charging voltage of PV charge controllers and lead acid battery chargers. It's an integrated circuit temperature sensor, sealed in epoxy to a copper sensor lug that connects to the battery terminal. It has a sensing temperature range of -40° to 100°C. The sensor IC has a gain of 10mV/degree Celsius and it is calibrated with the temperature compensation circuit of our PV charge controllers at 25° at the rate of 20mV per degree of temperature change, for example, a temperature increase of 10° will decrease the charging voltage by 200mV, and a decrease of 10° will increase the charging voltage by 200mV.

- Suitable for solar charge controllers MP-3129, MP-3722, MP-3724.

Specifications	
Min temperature	-40°C
Max temperature	100°C
Output voltage at 25°C	2.98V
Sensor gain	10mV/°C
Impedance	0.6 ohms
Max forward current	10mA
Max reverse current	15mA



1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MP-3725	$29.95	$26.90	$23.70

Solar Panel Charge Controllers

SOLAR REGULATORS / CHARGE CONTROLLERS (CONTINUED)

12V/24V 30A MPPT Solar Charge Controller

MPPT technology uses DC to DC conversion along with some electronic smarts to be able to extract the absolute maximum charging power from your solar panels, giving you up to an extra 10-40% from your solar panels when compared to a normal PWM charge controller. Adding to the benefits of MPPT technology are the features of this charge controller, such as 3-stage battery charging, twin timer programming, 30A load control with automatic load disconnection/reconnection, and much more. Programming is simple and intuitive via the front panel buttons whilst the LCD screen shows you what's happening. Suitable for 12V or 24V systems.

- Microprocessor controlled MPPT
- 3-stage charging
- 30A automatic load control with low-voltage disconnect/reconnect
- LCD display
- Two timers available for programming
- Includes temperature sensor for battery charging compensation
- Protection against over voltage, reverse connection, short circuit, over current, and over temperature

Specifications	12V Battery	24V Battery
PV nominal voltage	12V or 24V	24V
Max PV array	360W	720W
Max PV open circuit voltage	65V	65V
Bulk charge (adjustable)	13.80-14.8V	27.6-29.6V
Float voltage (adjustable)	13.0-14.0V	26.0-28.0V
Max charge current	30A	30A
Max load current	30A	30A
Ambient temp range	-20˚C - 50˚C	-20˚C - 50˚C
Efficiency	97%	97%
Dimensions	205(L) x 145(W) x 55(H)mm	

NOTE: This unit WILL charge a 12V battery from 24V solar panels, but not vice versa.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MP-3735	$249.00	$225.00	$198.95

1 YEAR WARRANTY

12 - 48V SunStar Solar Linkable Charge Controllers

These professional grade, high current solar charge controllers offer the flexibility to suit almost any solar installation. System voltage can be 12, 24 or 48V, and multiple units can be stacked together (up to 10 units max) allowing your system to grow and expand without rendering your old charge controller useless. Each unit features an LCD and front panel controls, and can be used as either a battery charger, load controller or diversion regulator. They can also be connected to a remote control for remote monitoring, and are fully protected against reverse polarity, short circuit, high temperature and overvoltage. Particularly suited to the SuperCombi and CombiPlus units, as they communicate via data cables to exchange charging information.

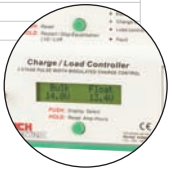
Specification	MP-3728
System voltage	12 - 48V
Max solar voltage	140V
Max operating voltage	68V
PV current	60A

RICH ELECTRIC

2 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
60 Amp	MP-3728	$329.00	$299.00	$265.00
Remote to suit	MP-3729	$99.00	$88.95	$78.95

Specifications	
Parallel connection (x 10 units)	Up to 600A
Min. voltage to operate	9V
Power Consumption	25mA while operating, 3mA when idle (inc. LCD)
Operating ambient temp	-40˚C - 70˚C
Cutout solar	@ 90˚C
Cutout load	@ 70˚C
Reconnect	solar @ 70˚C
Reconnect	load @ 50˚C
Humidity	100% non-condensing with conformal coating on both sides of all PCBs
Largest wire	35mm^2 / 2GA
Enclosure	Type 1, indoor rated
Weight	2kg
Dimensions	266(L) x 127(W) x 75(H)mm



Circuit protection:

- Reverse polarity • Short-circuit • Over current
- Lightning and transient surge protection, using 4500W transient voltage suppressors
- High temperature protection via automatic current reduction or complete shut down
- Prevents reverse current from battery at night

NOTE: requires data cable (WI-5250, WI-5252, WI-5254) for parallel stacking or connection to SuperCombi/CombiPlus units. PV nominal voltage must be same as battery voltage.

SunStar Advanced MPPT Solar Charge Controllers

True commercial grade MPPT solar charge controllers from Rich Electric, with a whole host of features to suit almost any system. These controllers feature high grade maximum power point tracking to provide maximum efficiency in converting solar generated power into battery charging. With a wide solar (PV) input voltage range and ability to charge either a 12V, 24V, 36V or 48V battery, these MPPT controllers can be used in any number of different system applications. The two auxiliary relay outputs can also be configured to do such tasks as start up a generator with remote start, or control a dump load so that you can also incorporate a wind generator into the system. With the ability to parallel stack up to 16 units, they can even be applied to solar arrays up to 60kW! See user manual on our website for full features and specifications.

- Continuous output power has NO DE-RATING at up to 50°C ambient temperature
- Supports flooded lead-acid, GEL, AGM and LiFePO4 batteries
- Full 4-stage battery charging
- Built-in energy monitor tracks power production and consumption to calculate the capacity remaining in the battery (requires external current shunt)
- Built-in backlit 2 line LCD character display
- Data logs total energy harvested for last 90 days, displaying in Wh, kWh or Ah
- Two programmable auxiliary relay outputs available
- Multiple units can be stacked for larger systems (up to 16 units in parallel)

NEW 2013

Two models available:

Specifications	
Max charge current (continuous at 50°C)	50A (MP-3736), 80A (MP-3733)
Battery voltage	12V, 24V, 36V or 48V
Max PV input current	40A (MP-3736), 70A (MP-3733)
Input voltage range	16-112VDC operating, 140VDC open circuit
Efficiency	>95%
DC to DC conversion capability	
12V battery	16-112VDC
24V battery	32-112VDC
36V battery	48-112VDC
48V battery	64-112VDC
Max PV array	3250W (MP-3736), 5200W (MP-3733), max when equalising 48V battery to 65V
Charging modes	bulk, absorption, float, auto/manual equalisation
Battery temp compensation	5.0mV per °C per 2V of battery
Standby power	<2W
Operating temp	full output power up to 50°C ambient
Dimensions	268(H) x 196(W) x 147(D)mm (MP-3736), 415(H) x 225(W) x 147(D)mm (MP-3733)
Weight	4.3kg (MP-3736), 7.1kg (MP-3733)

NEW LOWER PRICE

MP-3733

2 YEAR WARRANTY

RICH ELECTRIC

MP-3736

	Cat.	Qty 1+	Qty 2+	Qty 4+
50A	MP-3736	$849.00	$765.00	$679.00
80A NEW	MP-3733	$1,299.00	$1,169.00	$1,039.00

Note: Not stocked at all stores but can be ordered

SOLAR WATER PUMPS

Run your outdoor aquarium, garden pond or water feature from the sun, eliminating the need for wiring or the safety aspects of electricity near water. Each comes with its own solar panel, cable and pump assembly ready to go and has some electronic smarts built in to regulate the delivery of power during cloudy periods.

0.9W SOLAR WATER PUMP

Specifications	ZM-9200
Operating Voltage	7V
Power Consumption	0.9W
Flow Rate	140 litres/hour
Outlet Size	8mm
Cable Length	2m
Dimensions	
Solar Panel	188(L) x 155(W) x 25(H)mm
Pump Assembly:	42(L) x 39(W) x 28(H)mm

Pumps & Solar Panels not to scale

2.4W SOLAR WATER PUMP

Specifications	ZM-9202
Operating Voltage	12V
Power Consumption	2.4W
Flow Rate	200 litres/hour
Outlet Size	8mm
Cable Length	2m
Dimensions	
Solar Panel	308(L) x 166(W) x 25(H)mm
Pump Assembly	42(L) x 39(W) x 28(H)mm

Pumps & Solar Panels not to scale

1 YEAR WARRANTY

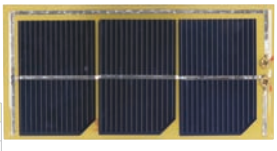
	Cat.	Qty 1+	Qty 3+	Qty 6+
0.9W	ZM-9200	$49.95	$44.90	$39.90
2.4W	ZM-9202	$99.95	$89.95	$79.95

SOLAR MODULE

Hobby Solar Module

Ideal for powering solar projects, hobbies, model solar cars and educational applications. 3 cells per module, rated at 1.5V. Total 0.5V each cell.

Specifications	
Open circuit voltage	1.5V
Short circuit current	500mA
Dimensions	148(L) x 74(W)mm
Weight	33g



	Cat.	Qty 1+	Qty 2+	Qty 4+
	ZM-9012	$19.95	$18.70	$17.70

SOLAR BOOKS

Solar Success - Getting It Right Every Time

A complete guide for home and remote property systems, this book is about using solar energy to reduce the fossil fuel generated electricity that produces our carbon footprint. A pragmatic no-nonsense approach written by acclaimed Australian author Collyn Rivers, who walks the walk by showing his self-installed solar system on his 100% solar powered 10-acre property in the Kimberley.

BOOK AVAILABLE

- Spiral bound softcover
- 112 pages, 300 x 210mm

	Cat.	Qty 1+
	BE-1537	$47.50

Solar that Really Works

The sun God Ra has been raining down free energy for about 4.5 billion years and only in recent years have humans developed the technology to capture it. This is an informative book that takes a practical look at the do's and don'ts of solar installation from caravans to fishing lodges. Contained within are detailed descriptions of working solar systems with illustrations. You won't be left asking questions as the author has everything covered.

BOOK AVAILABLE

- Softcover, 82 pages, 290 x 210mm

	Cat.	Qty 1+
	BE-1535	$42.50

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

BOOKS ON ALTERNATIVE ENERGIES

Build Your Own Direct Charging Plant

If you use a Deep Cycle battery to power a remote or mobile home you need an efficient charging plant. This book takes you through all the elements pertaining to building your own Direct Charging Plant including, basic to advanced battery charging, alternators, horsepower vs watts output calculations, power input, efficient regulation and more with full colour pictures and easy to read text.

MADE IN AUSTRALIA

BOOK AVAILABLE

- Softcover, 57 pages, Size: 254 x 183mm

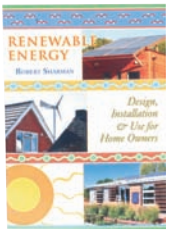
	Cat.	Qty 1+
	BE-1530	$24.95

Renewable Energy - Design, Installation and Use

Renewable energy is expanding at an unprecedented rate. Solar panels are now commonplace and can be seen on suburban rooftops, factories and shops. Wind farms are a growth industry and small scale wind generators are commonly available, not to mention biofuels and micro hydro systems. Regardless of whether you live in the city, on the land or in a motorhome this book explains renewable energy in an easy-to-read and understand format and covers everything from basic electrical concepts through to system design.

BOOK AVAILABLE

- Softcover, 201 pages, 280 x 200mm



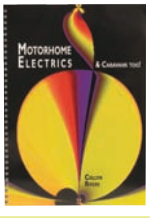
	Cat.	Qty 1+
	BE-1538	$38.95

Motorhome Electrics

A comprehensive text written primarily for owners, designers and builders of caravans, campervans and motorhomes who face unique power demands and challenges that most auto electricians are ill-equipped to properly address. This book spans the gap between auto electrical and alternative energy disciplines, providing thorough coverage of component definitions and applications, as well as thoughtful and straight-shooting advice on common electrical problems. An engaging read for those with a general understanding on the subject, it also features more technical in-depth sections to assist trade electricians. Written by acclaimed Australian author and field expert Collyn Rivers, this is an essential reference for all caravan & motorhome enthusiasts.

BOOK AVAILABLE

- Softcover, 102 pages. 300 x 210mm.



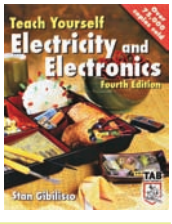
	Cat.	Qty 1+
	BE-1536	$42.50

Teach Yourself Electricity and Electronics - Fourth Edition

Comprehensive, straightforward and well-written, this book covers everything from atomic structure to DC and AC theory, semiconductors, integrated circuits, digital electronics and communications. Each chapter has a quiz at the end so you can test your knowledge of each subject. One of the best entry-level self-teaching textbooks on electronics we've ever seen.

BOOK AVAILABLE

- Softcover. 734 pages with illustrations. 232 x 190mm.

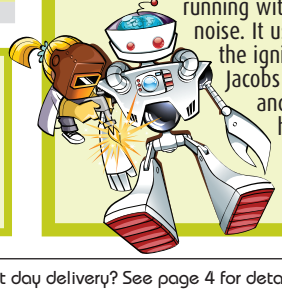


	Cat.	Qty 1+
	BM-7108	$59.95

Turbo Jet Engine

Makers Name: Neil Foster
Location: Queensland

My jet engine uses a turbocharger and has a combustion chamber where it burns the fuel. It has an afterburner, it's so loud I can feel the vibrations from the noise in my body when it is running. It makes a really great display when running with the flames and noise. It uses Jaycar parts in the ignition with the Jacobs Ladder driver kit and a Jaycar box to house it in.



For more details scan the QR code or go to www.jaycar.com.au/makers

Power Management Systems

COMBI SERIES INTERACTIVE INVERTER-CHARGERS

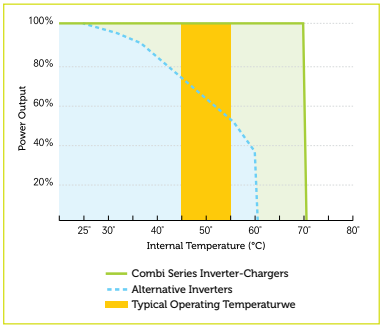
Packed inside each Combi Series Interactive inverter-charger are three main components: a powerful low-frequency pure sine wave inverter, a high power 4-stage battery charger, and a fast action automatic AC transfer switch. By including all the core functionality within one unit, the Combi Series are able to provide fully automatic operation and management of your entire power system. Be it a caravan, motorhome, marine vessel, off grid home, or backup power system - the Combi Series Interactive inverter-chargers have all the features you need, plus many many more.

TECH TIP!

See our dedicated power systems website www.jaycar.com.au/powertech for downloadable product information brochures and specifications, or email our team of power experts for more information at powertech@jaycar.com.au

RICH ELECTRIC

2 YEAR WARRANTY



NEW LOWER PRICE

FEATURES

- Powerful sine wave inverter, battery charger & automatic AC transfer switch in 1 unit
- Compact design with big power handling
- Power output guaranteed up to 70ºC, perfect for harsh outback conditions
- Intelligent, automatic power management
- Automatically switches between inverter power, generator power and park power (or other AC input)
- Automatically charges the batteries when an AC generator (or other AC power source) is connected
- Can automatically start the generator when required
- Boost the AC input power with inverter power for more output power!
- Stack multiple units for more power
- 2-phase and 3-phase capable
- Options for full control & monitoring of solar, AC generator, DC charging, DC loads, etc
- Expanding options allow for cost effective and simple upgrades
- Designed in Australia to suit harsh Australian conditions

Feature	CombiPlus	SuperCombi
Intelligent grid & generator power management	*	*
ATS uninterrupted AC transfer switch	*	*
Power output rated to 70ºC	*	*
2-phase and 3-phase capability	*	*
Stackable for more power	*	*
Power Support feature	*	*
Dynamic Power Shifting	*	*
4-Stage adaptive charging system	*	*
Solar Charging control (accessories required)	*	*
Full remote system control (accessories required)	*	*
Auto generator start function	*	*
Aux. battery charge output	*	*
Programmable Aux. relay outputs (x3)	*	*
Interactive Pure Sinewave Inverter-Charger	*	*
DC Load control (accessories required)		*
AC Charger Timer and Generator Timer control		*
DC Charging Control (accessoires required)		*

		Cat.	Qty 1+	Qty 3+
CombiPlus	12V 1500W	MI-5270	$1,999.00	$1,899.00
CombiPlus	24V 3000W	MI-5273	$3,199.00	$3,039.00
SuperCombi	12V 1500W	MI-5250	$2,199.00	$2,089.00
SuperCombi	24V 1500W	MI-5251	$2,199.00	$2,089.00
SuperCombi	24V 3000W	MI-5253	$3,699.00	$3,515.00

NEW LOWER PRICE

TECH TIP

Check out our CARAVAN & MARINE POWER PACKAGES on page 275 in the AUTO - OUTDOORS SECTION

	COMBIPLUS SPECIFICATIONS		SUPERCOMBI SPECIFICATIONS		
CombiPlus Specifications	**MI-5270**	**MI-5273**	**MI-5250**	**MI-5251**	**MI-5253**
Type	12V 1500W	24V 3000W	12V 1500W	24V 1500W	24V 3000W
General					
Power sharing	10A	20A	10A	10A	20A
Auto transfer	16A	32A	16A	16A	32A
Power stacking & 2 / 3 phase option	Yes	Yes	Yes	Yes	Yes
Weight	21kg	27kg	21kg	21kg	27kg
Dimensions L x W x H	370 x 258 x 362	370 x 258 x 424	362 x 258 x 370	362 x 258 x 370	424 x 258 x 370
Inverter					
Output power continuous at 70°C	1500W	3000W	1500W	1500W	3000W
Output power surge	3000W	6000W	3000W	3000W	6000W
No load power	8W	12W	8W	8W	12W
Input voltage	9.3 - 17VDC	18.6 - 34VDC	9.3 - 17VDC	18.6 - 34VDC	18.6 - 34VDC
Output voltage	210 - 245VAC	210 - 245VAC	210 - 245VAC	210 - 245VAC	210 - 245VAC
Output waveform	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave
Efficiency	82%	86%	82%	84%	86%
AC Charger					
Input voltage	180 - 270VAC	180 - 270VAC	180 - 270VAC	180 - 270VAC	180 - 270VAC
Maximum DC ripple	<1.25VRMS	<1.25VRMS	<1.25VRMS	<1.25VRMS	<1.25VRMS
Output charge voltage	12 - 16VDC	24 - 32VDC	12 - 16VDC	24 - 32VDC	24 - 32VDC
Charge current (main batteries)	70A	70A	70A	35A	70A
Charge current (aux battery)	4A	4A	4A	4A	4A
AC Input Switch					
Thermal circuit breaker	15A	30A	15A	15A	30A
AC input fault detection time	4 - 10ms	4 - 10ms	4 - 10ms	4 - 10ms	4 - 10ms
Trip level mains to inverter (user adjusted)	<180VAC	<180VAC	<180VAC	<180VAC	<180VAC
Trip level inverter to mains (user adjusted)	>187VAC	>187VAC	>187VAC	>187VAC	>187VAC

ACCESSORIES FOR COMBI UNITS

SunStar Solar Charge Controller

Commercial grade solar charge controller that can link with Combi Series units for centralised control and monitoring.

• See page 230

	Cat.	Qty 1+	Qty 2+	Qty 4+
60A	MP-3728	$329.00	$299.00	$265.00

SunStar MPPT Solar Charge Controllers

High grade 50A and 80A MPPT solar charge controller for maximum charging efficiency.

• See page 230

	Cat.	Qty 1+	Qty 2+	Qty 4+
50A	MP-3736	$849.00	$765.00	$679.00
80A **NEW**	MP-3733	$1,299.00	$1,169.00	$1,039.00

Mains Auto Transfer Switch

A high quality, 20A ATS that can link with Combi Series units to select between multiple AC inputs and adjust Combi settings accordingly.

• See page 235

	Cat.	Qty 1+	Qty 3+	Qty 6+
20A	MS-5300	$199.00	$178.95	$158.95

DC Voltage Sensitive Relay

Bi-directional voltage sensitive relay that can link with a SuperCombi unit for battery to battery charging, load control, DC charging, etc.

• See page 235

	Cat.	Qty 1+	Qty 3+	Qty 6+
140A	MI-5282	$229.00	$209.00	$182.95

Solarworx Grid Inverter

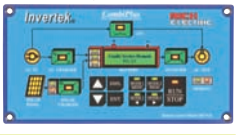
A multi-purpose grid inverter that can link with a Combi Series based power system to create a hybrid on-grid/off-grid power system.

• See page 234

	Cat.	Qty 1+	Qty 3+
2000W 12V	MI-5192	$1,499.00	$1,425.00
2000W 24V	MI-5194	$1,499.00	$1,425.00

Remote Control Panel

A full functioning wired remote control interface for the Combi Series units, allowing complete control and monitoring of your SuperCombi/CombiPlus from a separate location.
MI-5259 Remote Control Panel for SuperCombi
MI-5279 Remote Control Panel for CombiPlus



	Cat.	Qty 1+	Qty 3+	Qty 6+
Remote Control for SuperCombi	MI-5259	$349.00	$315.00	$279.00
Remote Control for CombiPlus	MI-5279	$299.00	$269.00	$239.00

Multiphase Data Hub for Combi Series

Required to link multiple units for 2/3-phase configurations.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MI-5276	$159.00	$142.95	$126.95

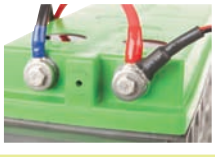
Parallel Stack Data Hub for Combi Series

Required to stack multiple units to increase power output.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MI-5277	$159.00	$142.95	$126.95

Battery Temperature Sensor for Combi Series

Highly recommended to protect your battery bank. Using the battery temperature sensor will allow the Combi Series units to adjust charging voltage and current depending on battery temperature.



	Cat.	Qty 1+	Qty 3+	Qty 6+
	MI-5278	$59.00	$52.95	$46.95

CombiPlus/SuperCombi Data Leads

Data leads for CombiPlus and SuperCombis. These allow data connection between our SuperCombi and CombiPlus units and their external accessories - such as DC switch controller (MI-5282) and solar charge controllers (MP-3726/MP-3728) - to allow the SuperCombi/CombiPlus to communicate directly and provide centralised programming and control of all components.

• Also required for parallel stacking of MP-3726 and MP-3728 solar charge controllers.

Specifications	
Sheath	Black PUR, V90 flame retardant.
Conductor	Plain copper wire
Insulation	V75

	Cat.	Qty 1+	Qty 3+	Qty 6+
3m	WI-5250	$29.00	$25.95	$22.95
5m	WI-5252	$39.00	$34.95	$30.95
10m	WI-5254	$49.00	$43.95	$38.95

Power Management Systems

GRID CONNECT INVERTERS

These SolarWorx Grid-Tie inverters differ from most Grid-Tie inverters currently on the market, as they allow you to feed power back into the grid either directly from your solar panel array, or feed power back into the grid from a battery bank that is charged externally by your solar array or other renewable source using an external solar charge controller. This provides a level of flexibility rarely seen with grid-tie inverters on the market, as it easily allows you to combine the government sponsorship of a grid-tie system with the full power management and backup power capabilities of our fantastic SuperCombi and CombiPlus systems.

If connected directly to the solar array, photovoltaic power is controlled by the SolarWorx grid-tie using Maximum Power Point Tracking (MPPT) to ensure the maximum amount of solar power is obtained and fed back into the grid at all times.

As mentioned, the bonus feature of these SolarWorx grid-tie inverters is that they can alternatively use a battery bank to convert battery stored power and feed that back into the grid. This enables much greater control over the way you manage and store the solar generated power, as it allows you to easily connected to pre-existing battery based systems, or gives you the ability to add multiple renewable power sources such as wind and hydro, or even add an advanced power management system such as a SuperCombi or CombiPlus to provide full blackout and power backup protection.

Two Models:

GRID TIE INVERTER 12VDC 2000W
Cat. MI-5192

GRID TIE INVERTER 24VDC 2000W
Cat. MI-5194

Available in 12V and 24V variations, and rated at 2000W output, these SolarWorx grid-tie inverters will allow you to maximise your government rebate and yet still allow you to further expand your solar system in the future without needing to replace your Grid-Tie inverter. Made by the same manufacturer as our brilliant SuperCombi and CombiPlus units, these are backed by an Australian-serviced 2 year manufacturer's warranty. Extended warranty options also available.

NEW LOWER PRICE

See our website, or www.richelectric.com.au for downloadable user manual and example system connection diagrams. NOTE: Contact your local electricity provider for details on grid-tied solar power credits. Special metering is required to receive feed-in tariffs.

- AC circuit breakers built in
- Suitable for use with solar, wind*, hydro or other renewable energy sources
- Maximum Power Point Tracking (MPPT) system
- High efficiency
- Pure sine wave output
- Low frequency inverter design (based on toroidal transformer)
- LCD front panel display provides readout of system parameters
- Programmable via front panel
- Feeds power to the grid either directly from a solar array or from energy stored in a battery bank
- Optional external remote control

*Wind turbine generators must have clean DC output. External turbine regulator may be required for AC/3-phase wind generators where a battery bank is not used.

APPROVAL
SAA100339

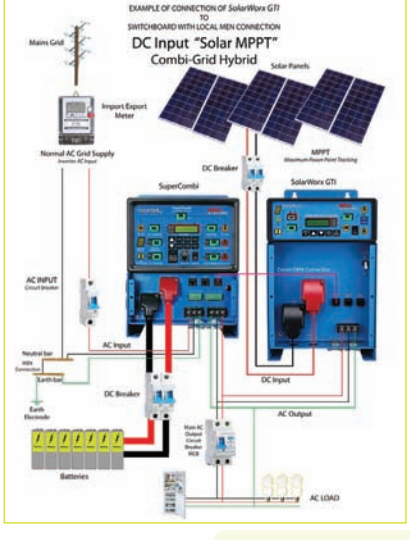
AS/NZS 4777,
AS/NZS 3100

	Cat.	Qty 1+	Qty 3+
2000W 12VDC	MI-5192	$1,499.00	$1,425.00
2000W 24VDC	MI-5194	$1,499.00	$1,425.00

Specifications:	MI-5192	MI-5194
Input		
Max input power at 50°C	2400W	2400W
Max DC input current	180A	90A
Max DC input voltage	40VDC	80VDC
MPPT range	16.5 - 32VDC	32 - 64VDC
Battery Input Voltage	10-16VDC	20-32VDC
Output		
Output power nominal	2000W	2000W
Output power max	2200W	2200W
Output voltage range	205 - 265VAC	
Output frequency	50Hz±1Hz	
Night power consumption	Nil	
Input/output isolation	3500VDC via toroid transformer	
Anti islanding protection	Over/under voltage, over/under frequency	
	active phase shift	
Parameters displayed	PV voltage, PV current,	
	AC grid voltage, current, feed power, kWH	
Dimensions	424(H) x 256(W) x 368(D)mm	
Weight	26kg	
Approval	SAA100339	

SAMPLE SYSTEMS

Note: Not stocked at all stores but can be ordered



TECH TIP

See our dedicated power systems website
www.jaycar.com.au/powertech
for downloadable product information brochures and specifications,
or email our team of power experts for more information at
powertech@jaycar.com.au

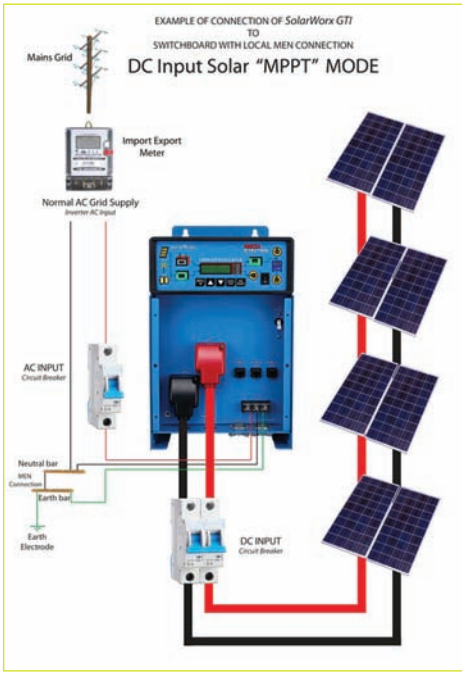
*Wind turbine generators must have clean DC output. External turbine regulator may be required for AC/3-phase wind generators where a battery bank is not used.

***Hybrid System**

In this system, a SuperCombi inverter/charger system is put in between the Grid-Tie inverter and the grid, and the two are linked. In this mode, you can take advantage of the features of BOTH the Grid-Tie system and the SuperCombi - providing such features as charging the batteries from solar power during the day, off-peak battery charging from grid at night, full blackout and backup protection, handsome feed-in tariffs and more.

GRID CONNECT

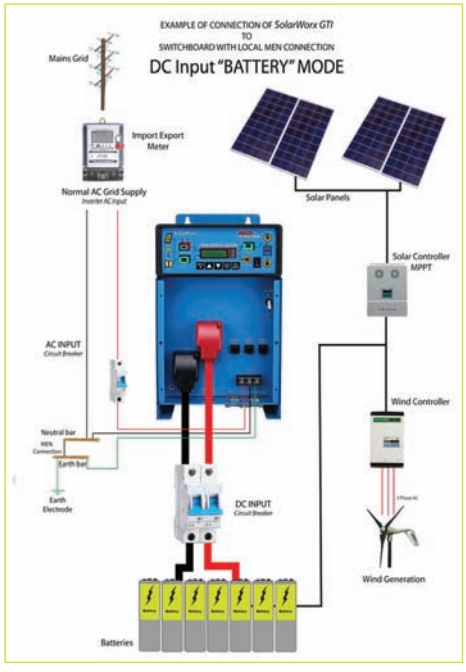
SYSTEM EXAMPLES



***MPPT mode**
Standard Grid-Tied solar system, where the solar panels are connected directly to the Grid-Tie inverter's input with MPPT functionality. Solar power is fed directly into the grid via the Grid-Tie inverter.

NOTE:
Contact your local electricity provider for details on grid-tied solar power credits. Special metering is required to receive feed-in tariffs.

***BATTERY MODE**
Solar panels, and/or other alternative energy sources, are connected to a battery bank via external charge controllers. Power is fed from the battery bank into the Grid-Tie inverter, and then fed back into the grid.



AUTO TRANSFER SWITCH & DC CHARGE CONTROLLER

Mains Auto Transfer Switch

The automatic transfer switch (ATS) allows you to connect your 240V power load to a mains power source, with a backup power source connected should the mains power source be interrupted, and provides automatic transfer for the load from the mains source to the backup source. Perfect for caravans and motor homes already fitted with an inverter and battery setup, as it allows the caravan to plug into "park" power, and automatically switch over to inverter power once unplugged from the caravan park supply. Also suitable for home or office backup power systems, or anywhere where a master and slave power source is present and automatic switching of the power source is required.

- Suitable for sensitive electrical equipment
- Monitors master power input with power protection
- Total switching time less than 12milliseconds
- Switching capacity: 20A
- Frequency: 50/60Hz (selectable)
- Universal output sockets
- Hard wired master & slave input terminals
- LED power status indicators

2 YEAR WARRANTY

Back of unit

Specifications	
Input voltage	190 - 240VAC
Switching capacity	20A
Trip level mains - generator	<180VAC
Trip level generator - mains	<188VAC
Switching time	<12m sec
Continuous power stability interval	30 secs
Dimensions	220 x 130 x 95mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MS-5300	$199.00	$178.95	$158.95

Battery-to-Battery DC Charge Controller 12/24V - 140A

This advanced programmable Battery-to-Battery DC Charge Controller can be used in three different and distinct ways making it a genuine battery management control system. Firstly, it can be used as a bi-directional, fully programmable battery to battery charge controller. Alternatively, it can be used as an independent, fully programmable DC load controller low voltage disconnect/re-connect with programmable twin timer functions. Or finally, it can be used in conjunction with the SuperCombi power management system as the DC load controller or DC generator input. Being fully programmable via the large LCD and simple intuitive front panel controls, the possible applications for this little device are vast and the programmable flexibility allows for even the more abnormal installations - even if the battery is mounted right up the other end of your caravan with 20m of cable from the DC charging source, you can adjust the voltage set points to compensate for voltage drop of the cables.

- Suitable for 12V or 24V systems, up to 140A maximum current.

2 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
140A DC Switch Controller	MI-5282	$229.00	$209.00	$182.95

Specifications	
Operating voltage	9-35VDC
Rated continuous current	100A/12V, 70A/24V
Rated intermittent current	140A/12V, 100A/24V
Dimensions	111(W) x 90(H) x 58(D)mm
See website to download user manual.	

Remote - Off Grid Power Packages

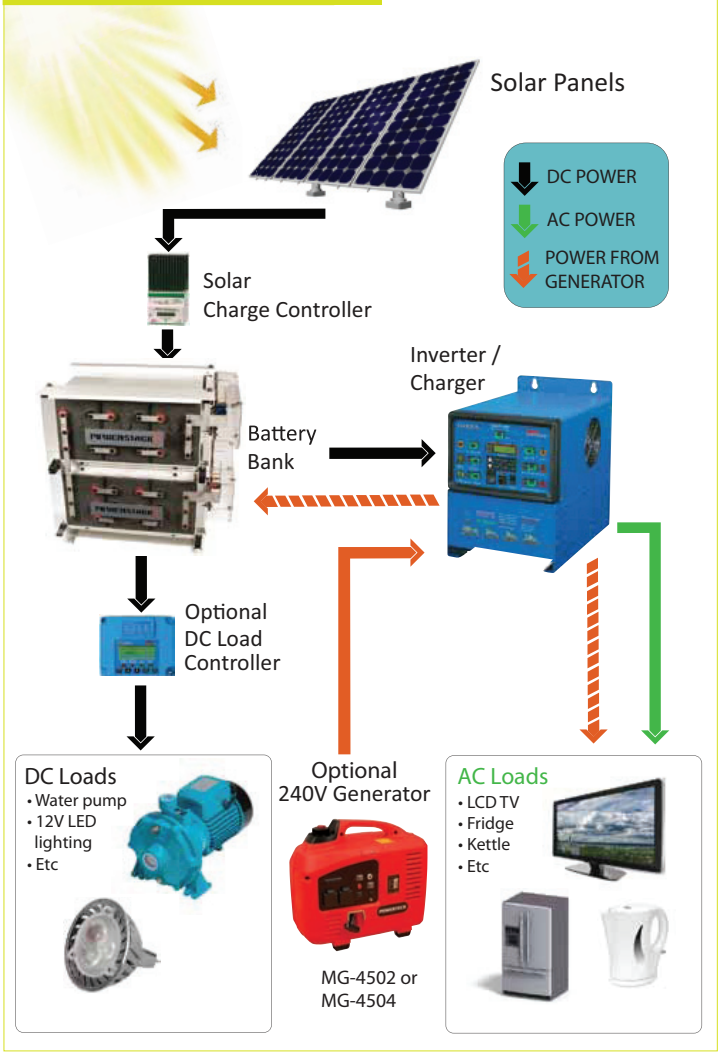
REMOTE POWER PACKAGES

For those living in locations where mains electricity isn't available, or is prohibitively expensive to have connected, a remote power system is the best solution to household power needs. Be it your home, your weekend getaway or an outlying shed on your property, we have the right combination of products to satisfy your power requirements. We've been selling solar panels, wind turbines, DC to AC inverters and deep cycle batteries for years, so you can be sure that the equipment we supply will stand the test of time and rigours of daily use. Whilst a remote power system can be a major investment, there are government incentives and rebates available that may support your purchase*

We currently have 3 new packages available and each contains the necessary number of solar panels, a fully featured inverter-charger power management system, solar charge controller, high capacity deep cycle battery banks, cables, connectors and cable-termination tooling. Just add the appropriate panel mounting hardware and you are ready to go.
Please contact us for full system details, pricing and sales materials. Systems can be customised to individual needs. Ask our store staff or visit www.jaycar.com.au/powertech

* Check with your relevant local and state authorities on what rebates are available and whether they apply to your particular application/installation. For most installations the Solar Credits Scheme is the applicable Govt. incentive.

HOW IT WORKS



PACKAGE SYSTEM 1

NEW 2013

REMOTE GETAWAY SYSTEM

3.0kWh PER DAY*

WITH 1.2KW SOLAR ARRAY AND 1500W INVERTER-CHARGER
Three days system autonomy at 3kWh per day of power use.

Suitable for:
- Powering household appliances of under 2kW for short periods
- Energy efficient lighting such as LED
- Efficient AC or DC refrigerators
- Small DC water pump
- Laptop LCD TV, DVD players, etc
- Efficient washing machine on sunny days (cold cycle only)

Cat. MP-9002

FROM $11,140.00

PACKAGE SYSTEM 2

NEW 2013

REMOTE LIVING SYSTEM

5.0kWh PER DAY*

WITH 2.0KW SOLAR ARRAY AND 3000W INVERTER-CHARGER
Four days system autonomy at 5kWh per day of power use.

Suitable for:
- Powering most common household appliances
- Energy efficient lighting such as LED
- May be used for stoves and hot water, but gas is recommended
- Efficient AC or DC refrigerators
- Small DC water pump
- Laptop LCD TV, DVD players, etc
- Efficient washing machine (cold cycle only)

Cat. MP-9004

FROM $18,860.00

PACKAGE SYSTEM 3

NEW 2013

REMOTE LUXURY SYSTEM

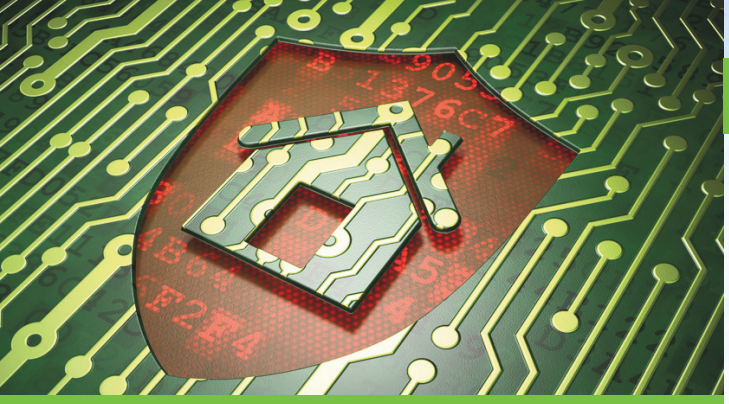
10.0kWh PER DAY*

WITH 4.0KW SOLAR ARRAY AND 6000W INVERTER-CHARGER
Four days system autonomy at 10kWh per day of power use.

Suitable for:
- Almost any common household appliance
- Stoves, ovens and hot water systems (but care taken not to exceed inverter capacity)

Cat. MP-9006

FROM $34,590.00



Security & Surveillance

Most of the time Jaycar sells products in the $40-$100 range. Rarely do we have a product in the $500-$1,000 range. Except for DVR/Surveillance Camera kits. People take their security seriously enough to be prepared to pay that sort of money. We were selling recorder/camera packages when the recorder was a modified VCR unit. They were too complex mechanically & frankly, we were very happy to see that technology go. Jaycar was the first to market a hard disk drive based recorder. It was a breath of fresh air!

Nowadays we sell up to 32 camera systems with many cameras connected wirelessly to the recorder. They can record for months. You can interrogate the entire system - day or night - from anywhere in the world. If you are contemplating the installation of one of these systems (home or business) we suggest you read on or come in to one of our stores to see them working in our showroom. Note that we can provide you with a full commercial invoice for tax purposes.

Jaycar is probably the best place to go to acquire a digital surveillance system. We have absolutely everything you need, including free expert advice & satisfaction guarantee.

Apart from the DVR kits, we have a very large range of actual video cameras. From ones that can see over 100 metres away to ones that are motorised & can swing around, to ones that see in the dark. Our staff are experts at all of this.

On another note, we have probably Australia/NZ's biggest range of video rear vision systems for large caravans, trucks, etc. and reversing cameras for even the smallest car. Modern rear vision/reversing can be wireless to remove the installation hassle.

We even have portable outdoor TV recording systems for both animal habitat observation or temporary security. We also have a new night vision scope which works in absolute blackness. Amazing.

We have wireless home burglar alarms, an alarm for your shed which is powered by solar energy...the list is endless!

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WIRELESS DVR & CAMERA KITS - DIGITAL 2.4GHz

Wireless DVR Kit with Solar Powered 2.4GHz Digital Wireless Camera, PIR Sensor & 2 x 5W LED Lights

Keep the perimeter of your home or business secure with this easy to install wireless DVR kit. The integrated PIR sensor provides reliable motion detection, triggering both the camera and 2 x 5W LED lights (when dark). Video is transmitted wirelessly and a 3W monocrystalline solar panel keep the batteries charged, so it can be installed in areas where it is too difficult to run wires. The DVR accepts up to four cameras, which can be monitored one at a time or in a quad view. The camera can be motion or voice activated and set to record up to ten seconds of video or take a snapshot.

- Kit includes: DVR receiver with mains adaptor, remote control, camera sensor light with rechargeable Li-ion battery, solar panel and USB & AV cables.
- Spare camera to suit QC-3646

- Single or quad view
- Audio monitoring
- Video zoom support
- Voice activated recording
- Motion activated recording
- Alarm support
- Photo album support
- Record audio and video
- Playback audio and video
- Multinational language support

Camera, Light Specifications	
Rechargeable battery	7.4V/2200mAh Li-ion battery
Solar Panel	12V/3W monocrystalline
Transmission frequency	ISM 2400 2483.5MHz
Modulation mode	GFSK
RF Rate	3Mbps
Transmission power	20dB
Transmission distance	up to 150m
Lumens	Up to 600
Colour Temperature	6000K 7000K
IR night-vision lamp	
Motion detection range	up to 10m, 160° wide
Encoding	H.264 at 480x272, 25fps
Built-in microphone	
Lamp dimension (fully extended with antenna)	290(L) x 215(W) x 118(D)mm
Solar panel dimension (including bracket)	187(L) x 175(W) x 30(D)mm

DVR Specifications	
Transmission frequency	ISM 2400 2483.5MHz
Modulation mode	GFSK
RF rate	3Mbps
Transmission power	20dB
Transmission distance	300m
Video-out resolution	720x576, 720x480
Encoding	H.264 at 480x272, 25fps
SD memory card	1GB to 32GB (2GB SD card included)
Speaker function for voice communication	
Quad view resolution	240x136, 60fps (each camera)
Dimensions (including base and antenna)	207(L) x 92(W) x 77(D)mm

PIR Detection | Supports SD Cards | Quad Screen Display

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR Camera Kit	QC-3644	$299.00	$269.00	$255.00
Spare Camera	QC-3646	$199.00	$178.95	$168.95

Wireless DVR & Camera Kits

WIRELESS DVR & CAMERA KITS - DIGITAL 2.4GHZ

These compact camera and DVR kits are easy to install and suitable for surveillance in and around a small shop, office or home. Up to 100m range between camera and receiver provides you with ample coverage, and the digital 2.4GHz wireless signal delivers clear, flicker free images. MJPEG video compression makes efficient use of the available bandwidth while frequency hopping drastically reduces signal interference caused by other electronic devices. The weatherproof cameras are suitable for use outdoors and withstand common outdoor weather conditions, including heavy rain. You can continue to monitor and record in complete darkness with the built-in IR LEDs illuminating objects up to 5m away. The receiver records to a SD memory card (up to 32GB), making it easy to transport footage offsite.

Specifications	QC-3676 (see below)	QC-3675 (see below)	QC-3678 (see next page)
Camera			
Sensor	1/4" OV7725 CMOS	1/4" OV7725 CMOS	1/4" CMOS
Horizontal resolution	420TVL	420TVL	420TVL
Minimum Illumination	0 Lux (IR ON)	0 Lux (IR ON)	0 Lux (IR ON)
Lens	6mm	6mm	6mm
Voltage	5V 1A	5V 1A	5V 1A
Dimensions	50(Dia.) x 69(D)mm (excluding sun shade)	50(Dia.) x 69(D)mm (excluding sun shade)	147(L) x 66(W) x 42(H)mm
Spare Camera	QC-3677	QC-3677	QC-3679
DVR/Receiver & Display			
Display	not inlcuded	7" TFT LCD	7" TFT Touch Panel
Effective Pixels	NA	640x480	800x480
Video format	NTSC/PAL	NTSC/PAL	NTSC/PAL
Video Compression	MJPEG - 4	MJPEG - 4	H.264 (MP4)
Video inputs	4 Channel wireless single	4 Channel wireless single	4 Channel wireless single
	Supports up to 4 cameras	Supports up to 4 cameras	Supports up to 4 cameras
Video outputs	1 composite output	1 composite output	1 composite output
Audio output	1 x composite	1 x composite	1 x composite
Frame rate	640x480 20fps VGA 220x240 25fps QVGA	640x480 20fps VGA 220x240 25fps QVGA	Single Camera at 480x272@20fps QUAD at 320x240@5fps/channel (max 28fps total)
Memory card	Up to 32GB (SDHC)	Up to 32GB (SDHC)	Up to 32GB (SDHC)
Frequency	2.4GHz (Digital FHSS)	2.4GHz (Digital FHSS)	2.4GHz (Digital FHSS)
Transmission Range	Approx 200m (open sight)	Approx 200m (open sight)	Approx 150m (Line of sight)
Batteries	NA	NA	3.7V 1800mAh recharageable
Battery life	NA	NA	3hrs (monitoring off)
Power supply	12VDC 1A	12VDC 1A	5VDC 1A
Dimensions	112(L) x 111(W) x 20(D)mm*	200(W) x 118(H) x 20(D)mm	184(W) x 127(H) x 25(D)mm
Special Features			
Network Access	none	none	Network accessible
What's in the kit?			1 x IR Camera
	1 x IR Camera	1 x IR Camera	1 x IR Camera
	1 x DVR/Receiver Unit	1 x DVR/Receiver Unit	1 x DVR/Receiver Unit
	2 x Power supplies	7" TFT LCD Built into Receiver	7" TFT Touch Panel Built into Receiver
		2 x Power Supplies	2 x Power Supplies
What you may need			
	Additional Cameras - up to total of 4 QC-3677	Additional Cameras - up to total of 4 QC-3677	Additional Cameras - up to total of 4 QC-3679
	SD Memory card (SDHC) up to 32GB	SD Memory card (SDHC) up to 32GB	SD Memory card (SDHC) up to 32GB
	Monitor QM-3752 (page 341)		

Note: The range is an estimate only of the maximum possible distance under ideal conditions.

Digital Wireless Receiver DVR with 1 x IR Camera Kit

*Note: Product may vary to one shown.

This simple to install security kit includes a digital wireless DVR and 1 x IR camera to assist in monitoring environments subject to criminal behaviour, simply connect the DVR to your TV to monitor the camera feed. Wireless allows you to bypass the need to run metres of CCTV cabling in hard to reach areas. Though 1x IR camera is included, the unit can be expanded to 4 cameras which can be purchased separately (QC-3677). Minimal setup required.

Weatherproof Camera · Supports SD Cards · Motion Trigger Recording · DIY Easy Installation · 200m Wireless Range Line of Sight · TV Out · 1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
Receiver and Camera Kit	QC-3676	$149.00	$133.95	$126.95
Wireless Spare Camera	QC-3677	$99.00	$88.95	$83.95

Digital Wireless Receiver DVR with 7" LCD & Camera Kit

A ready to go wireless security solution with minimal setup steps. It's a full kit complete with a 7" LCD/DVR combo, and 1 x camera to help you monitor the goings on your office, retail shop, or workshop. Wireless design means you don't have to spend time and money having CCTV cables installed in walls, roofs, or other locations. 1 x IR wireless camera is included but extras can be purchased separately (QC-3677), a total of 4 cameras can be used. The camera has a motion sensor which will help trigger recording when movement is detected and the IR LEDs means you can record at night. The LCD screen can be set into 4 frames allowing you to simultaneously view input from 4 different camera sources. The receiver can record to an SD memory card (available separately) to playback at a later date.

Spare Cameras for QC-3675 & QC-3677

Weatherproof Camera · Supports SD Cards · Motion Trigger Recording · DIY Easy Installation · 200m Wireless Range Line of Sight · TV Out · 1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QC-3675	$199.00	$178.95	$168.95
Wireless Spare Camera	QC-3677	$99.00	$88.95	$83.95

WIRELESS DVR & CAMERA KITS - DIGITAL 2.4GHz (CONTINUED)

Network 2.4GHz Digital Wireless 7" Touch LCD DVR Receiver & Camera Kit

NEW 2013

Simple to install and setup, wireless and easy to use, this DVR kit is ideal for homes, offices or retail stores where security is essential.

Monitor footage on its 7" LCD touch screen, or remotely on your iPhone® or Android device. Recording can be motion-triggered to save storage space on your SD card (available separately) so you never miss a thing. It can also be used for larger areas: simply purchase additional cameras (QC-3679) as required (maximum of 4 cameras) and you're ready to go. With Ethernet capability you can monitor the cameras remotely on your Smartphone, and IR LEDs enable you to view footage at night in the dark.

TECH TIP!
View live footage on a Smartphone

Network Specifications	
Receiver Configuration	Embedded Linux system
Record Mode	Schedule / Manual / Motion Detection (any camera / activated by software, not PIR)
Smart Phone Access	Free Apps: Apple® iOS, Android OS for Phone & Tablets
Access Operation system	
Home Mode	View & Recording Plus Battery Charging station at home is the 1st priority
Remote Mode	Background Recording Plus Charging & Remote View (No Screen-view) - Maximum of 2 simultaneous remote users.
Available bandwidth Required	1Mbps Upload/Download

	Cat.	Qty 1+	Qty 2+	Qty 4+
7" Receiver and Camera Kit	QC-3678	$399.00	$359.00	$339.00
Wireless Spare Camera	QC-3679	$149.00	$133.95	$126.95

Digital Wireless DVR Kit with 4 CCD Wireless Cameras

NEW 2013

Note: Product may vary to one shown.

This kit is a complete 2.4GHz digital wireless H.264 security system that contains a multi-channel network DVR and 4 x wireless cameras and a 500GB HDD. It uses an advanced digital modulation design, and each wireless camera is fitted with 24 IR sensors for day and night use. The kit also supports the use of two wired cameras in conjunction with 2 wireless cameras. An easy to use graphical interface will help you navigate DVR settings, view HDD space, playback recorded footage, and more.

It's an ideal do it yourself solution to protect your home, business office, stores, retail operation, or wherever security is a concern. It offers a 100m operating range, can be installed easily in minutes and requires no monitoring services or fees. This DVR system also uses graphical interface easy to use and supports mobile surveillance and email notification.

TECH TIP!
500GB HARD DRIVE

WHAT YOU GET:
- 4 X 420TVL CCD Wireless Cameras
- 1 x DVR 500GB
- 5 x Power Supplies

WANT TO ADD ANOTHER MONITOR?
• See our 17" Monitor on page 341

TECH TIP

CCD vs. CMOS

CCD Sensors have been used in cameras for more than 20 years, and provide greater light sensitivity which results in better image quality when compared to CMOS sensors. Whilst the number of TV lines of a CMOS and CCD camera might be similar, this does not necessarily mean that they will have a similar image quality. In low light conditions the image difference between CMOS and CCD is particularly noticeable. CCD Sensors are more expensive, and more complex to integrate into a camera. Recent advances have brought CMOS sensors closer in performance to CCD sensors however their lower light sensitivity remains their most noticeable limitation.

The SONY Ex View HAD II with Effio DSP solution has the best and clearest picture quality of any camera we currently sell. It most noticeably demonstrates the gulf in the light sensitivity and hence picture quality that exists between CCD and CMOS sensors.

LENS GLOSSARY

ED (Extra-low Dispersion) Glass

ED glass helps to minimise chromatic aberrations often seen when strong IR and near-IR light is present (e.g. from high powered IR illuminators) whilst also reducing the focal deviation between the visible and near-IR spectrums making it perfect for day / night use.

Aspherical Lenses.

Aspherical lenses all but eliminate spherical aberrations caused by strong light sources situated just out of the field of view (e.g. bright sunlight, fluorescent lighting and IR illuminators).

DVR Specifications	
Video compression format	H.264
Video input	4 channels wireless (or 2 wireless + 2 wired)
Video output	Composite video, VGA
Minimum recording resolution	352 x 288 (CIF)
Maximum recording resolution	720 x 576 at 25fps per channel
Maximum recording frame rate	100 fps
Hard disk storage	500GB SATA included
Back-up	USB & network remote back-up
Network interface	RJ45, 10/100Mbps
Power supply	12VDC 5A (included)
Dimensions	300(W) x 220(D) x 50(H)mm

Camera Specifications	
Sensor	1/3" Sony CCD
Sensor resolution (H x V pixels)	640 x 480
Horizontal resolution	420TVL
Minimum illumination	0.01Lux
IR illumination	24 LEDs
Effective IR range	Up to 10 metres
Lens	f3.6mm / F2.0
Lens angle	90°
IP rating	IP66
Power source	12VDC
Current draw	35mA (IR OFF), 180mA (IR ON)
Dimensions	135(L) x 85(H) x 68(W)mm

TECH TIP!
View live footage on a Smartphone

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-3046	$999.00	$899.00	$849.00

Network DVR & Camera Kits

DVR & Camera Kits Comparison Chart

A new range of TECHview DVR Camera Kits suitable for Home and Office applications. Each model has network access so camera vision can be viewed across a network or over the Internet using a web browser or Smartphone with a freely available app. Video is compressed using H.264 (also known as MPEG-4 AVC), which provides great picture quality at an efficient file size so you can get more video footage on your hard drive than both MPEG-2 and MPEG-4 compression. The kits are supplied in attractive packaging with carry handles.

Channels	Cameras	Camera Type	Camera TV Lines	Hard Drive	Cat No.	With 17" Monitor	Page
4	4	CMOS	380TVL	500GB	QV-3028	QV-3100	336
4	4	CMOS	600TVL	500GB	QV-3032	QV-3102	337
8	4	CMOS	600TVL	500GB	QV-3034	QV-3104	338
8	8	CMOS	600TVL	500GB	QV-3035	QV-3105	338
4	4	CCD	520TVL	500GB	QV-8108	QV-3106	337
4	2	CMOS	350TVL	320GB	QV-3030	-	336
8	4	CCD	650TVL	500GB	QV-3036		338

Network 4 Channel DVR Kit with 4 Cameras

With continuing advances in quality and technology it is easy to see why cost effective DVR surveillance kits are popular for homes and businesses alike. Containing a DVR, four cameras, cables, and power supply, this kit offers exceptional value for money and provides all round day and night visual access to your premises. Kit includes standard resolution weatherproof cameras suitable for covering the vital areas inside or outside your premises and are equipped infrared LEDs to provide illumination at night. The four channel DVR supports full D1 resolution at 25 frames per second on each channel and comes with 500GB of storage for up to 300 hours of continuous video recording. Recording can be initiated manually, triggered by a timer, or activated by movement in the camera's field of vision. Connect the DVR to a computer network and you can even view video remotely from anywhere in the world using a web browser or Smartphone/iPhone® (via installed app*).

* Free app for viewing live video available for download.

DVR Specifications	
Video compression	H.264
Video input	4 channel BNC composite
Video output	BNC Composite, VGA
Audio input	2 channel RCA
Audio output	2 channel RCA
Maximum recording resolution	704 x 576 (D1) at 25fps per channel
Maximum recording frame rate	100fps
Power supply	12VDC 2A (included)
Dimensions	300(L) x 210(W) x 50(H)mm

TECH TIP!
View live footage on a Smartphone

Camera specifications	
Sensor	1/3" CMOS
Horizontal resolution	380TV Lines
Lens type A (2 cameras)	3.6mm lens, 72° angle
Lens type B (2 cameras)	6mm lens, 45° angle
Size	85(L) x 58(Dia)mm
Voltage	12VDC from DVR power supply

Camera Cables	
Cable type	Combination video and power
Cable length	18m

D1 Recording Resolution · Weatherproof Camera · 500GB Hard Drive · H.264 · Remote Viewing · Motion Trigger Recording · DIY Easy Installation · 350TVL Cameras · USB Connection · Remote Control · Mouse Included · NEW LOWER PRICE · 1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-3028	$499.00	$449.00	$425.00
DVR + 17" Monitor Package	QV-3100	$649.00	$599.00	$575.00

Network 4 Channel 10" LCD DVR & Camera Kit

TECH TIP!
Too complicated? See Tech Tip on page 347

Everything you need to get a surveillance system up and running. Two cameras are included and the HDD in the DVR has a 320GB capacity. Recording can be started manually, by programming or by a triggered alarm condition. Monitoring may be done real-time on a VGA monitor or on a LAN network by several users at once and the DVR can be controlled either by mouse or the IR remote control.

- App is free for single use and may incur a charge for multi-user
- iPhone® and Smart Phone support
- H.264 Compression
- Real time monitoring
- ADPCM audio compression
- Multiple record and alarm modes
- Motion trigger recording
- Alarm notification via email
- 3G mobile phone monitoring
- Support D1, HD1 and CIF recording resolution
- Remote live viewing
- Auto recovery after power failure
- Video loss alarm
- Password protected
- PTZ function via RS-485 port
- IR Remote Control & USB 2.0

TECH TIP!
View live footage on a Smartphone

DVR specifications		
Video Compression		H.264
Video System		NTSC / PAL
Input / Output	BNC	4-ch inputs / BNC: 2-ch outputs
Audio		1-ch input / RCA: 1-ch output
Display resolution	NTSC	704 x 480 / PAL: 704 x 576
Recording resolution	NTSC	CIF(352 x 240) / HD1 (704 x 240) / D1(704 x 480)
	PAL	CIF(352x 288) / HD1(704 x 288) / D1(704 x 576)
	PAL	25fps-D1 / 50fps-HD1 / 100fps-CIF (shared by 4 cameras)
Recording modes		Always, scheduled or motion triggered
PTZ Control		Built-in RS-485 / support PELCO-P & PELCO-D
Sensor & alarm		NO
Network Interface		RJ45, 10M/100M
Network protocol support		TCP/IP, UDP, DHCP, DNNS, PPPoE
Power Supply		DC12V / 3A

Camera specifications	
Sensor	CMOS
Resolution	350TV lines
Illumination	Inbuilt Infrared
Operation	Day / Night

Quad Screen Display · LCD Digital Display · 350TVL Cameras · Weatherproof Cameras · 320GB Hard Drive · H.264 · Remote Viewing · DIY Easy Installation · USB Connection · Mouse Included · NEW LOWER PRICE · 1 YEAR WARRANTY

	Cat.	Qty 1+		
DVR & Camera Kit	QV-3030	$449.00		
	Cat.	Qty 1+	Qty 4+	Qty 10+
Spare Camera	QC-3239	$59.95	$53.95	$47.90

Network 4 Channel DVR Kit with 4 High Resolution Cameras

NEW 2013

Suitable for home, office, and retail shops this kit includes a DVR, cameras, cables and power supply to give you all the necessary parts for a surveillance installation. Designed for locations which require superior video quality, the kit includes high grade cameras and a 4 channel DVR with additional features not found in economy DVR kits.

The CMOS cameras output high quality 600TV line video signals have 24 infrared LEDs to give longer range night vision and include IR cut filter to give improved colour reproduction under normal light. The DVR features include recording of full D1 resolution from all 4 camera inputs, multiple outputs for local viewing, and an Ethernet connection which can be configured for remote viewing. It is also capable of accepting alarm trigger signals from separate sensors or an existing alarm system and can record 4 audio channels. Supplied with 500GB of storage capable of recording up to 300 hours of continuous video, it also has USB support for backup to thumb drive or portable hard drive (not included). By connecting the DVR to your computer network, video can also be viewed remotely via using a web browser or iPhone®/Smartphone application*.

TECH TIP!
View live footage on a Smartphone

* Free app available for viewing live video. Application based searching and backup requires advanced version at an additional cost.

DVR Specifications	
Video compression format	H.264
Video input	4 channels composite
Video output	HDMI, Composite video, VGA
Minimum recording resolution	352 x 288 (CIF)
Maximum recording resolution	704 x 576 (D1) at 25fps per channel
Maximum recording frame rate	100fps
Hard disk storage	500GB SATA
Back-up	USB & network remote back-up
Network interface	RJ45, 10/100Mbps
Power supply	12VDC 2A (included)
Dimensions	300(W) x 220(D) x 50(H)mm

Camera Specifications	
Sensor	1/3" CMOS
Sensor resolution (H x V pixels)	792 x 698
Horizontal resolution	600TVL
Minimum illumination	0.05Lux
IR illumination	24 LEDs
Effective IR range	Up to 10 metres
Lens type A (2 cameras)	3.6mm lens, 72° angle
Lens type B (2 cameras)	6mm lens, 45° angle
IP rating	IP66
Power source	12VDC
Current draw	35mA (IR OFF), 180mA (IR ON)
Dimensions	135(L) x 85(H) x 68(W)mm

600TVL Cameras · Recording Resolution · Weatherproof Cameras · 500GB Hard Drive · HDMI Connection · H.264

NEW LOWER PRICE

Remote Viewing · Motion Trigger Recording · DIY Easy Installation · USB Connection · Remote Control · Mouse Included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-3032	$649.00	$585.00	$555.00
DVR & Camera Kit + 17" Monitor	QV-3102	$799.00	$719.00	$679.00

Network 4 Channel DVR with 4 High Resolution CCD Cameras

NEW 2013

This complete surveillance package contains a full function multiplexing DVR with Ethernet access, four weatherproof CCD cameras with IR illumination, four 20m camera cables and remote control. Ideal for any small business or residential location the cameras will provide vision in total darkness, while the video output will connect to an existing television screen or computer monitor for viewing in real time.

Alternatively connection to a computer network will allow remote access viewing from anywhere with an internet connection using a web browser or Smartphone (Free app available).

The CCD cameras provide a superior night time performance when compared to CMOS cameras.

TECH TIP!
View live footage on a Smartphone

DVR Specifications	
Video compression format	H.264
Video input	4 channels composite
Video output	Composite video, VGA
Minimum recording resolution	352 x 288 (CIF) at 100fps (shared by 4 cameras)
Maximum recording resolution	704 x 576 (D1) at 100fps (shared by 4 cameras)
Max Recording frame rate	100fps
Hard disk storage	500GB SATA
Back-up	USB & network remote back-up
Web transmitting/compression format	H264
Network Interface	RJ45, 10/100Mbps
Power supply	19VDC 2.1A (included)
Dimensions	343(W) x 240(D) x 68(H)mm

Camera Specifications	
Sensor	SHARP 1/3" CCD
Sensor resolution	(H x V) 752 x 582
Horizontal Resolution	520TVL
Min Illumination	0.1Lux @ f/2.0, 0Lux (IR ON)
IR Illumination	21 LEDs
Effective IR range	Up to 15 metres
Lens	3.6mm f/2.0
Lens angle	92.6 degrees
IP Rating	IP67
Power source	12VDC
Current draw	70mA (IR OFF), 270mA (IR ON)
Dimensions	90(L) x 60(Dia)mm

520TVL Cameras · Weatherproof Cameras · CCD Sensor · 500GB Hard Drive · H.264

NEW LOWER PRICE

Remote Viewing · Motion Trigger Recording · DIY Easy Installation · USB Connection

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-8108	$649.00	$585.00	$555.00
DVR & Camera Kit + 17" Monitor	QV-3106	$799.00	$719.00	$679.00

Network DVR & Camera Kits

Network 8 Channel DVR Kit with 4 High Resolution Cameras

NEW 2013

Get the most flexibility in your installation with this expandable 4 camera surveillance kit. Supplied with 8 channel DVR, 4 high resolution colour cameras in weatherproof enclosures, 18m camera cables, and power supply. With 8 channels on the DVR you can add additional cameras to suit you installation requirements. The included CMOS cameras output high quality 600TV line video signals have 24 infrared LEDs to give longer range night vision and include IR cut filter to give improved colour reproduction under normal light.

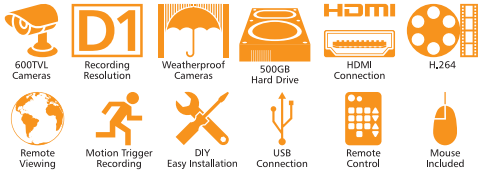
The DVR features include recording of full D1 resolution from all 8 camera inputs, multiple video output formats for local viewing, and an Ethernet connection which can be configured for remote viewing. It is also capable of accepting alarm trigger signals from separate sensors or an existing alarm system and can record 8 audio channels. Supplied with 500GB of storage capable of recording up to 200 hours of continuous video. USB support is included for backup to thumb drive or portable hard drive (not included). By connecting the DVR to your computer network, video can also be viewed remotely via using a web browser or iPhone®/Smartphone application*.

* Free app available for viewing live video. Application based searching and backup requires advanced version at an additional cost.

TECH TIP!
View live footage on a Smartphone

DVR Specifications	
Video compression format	H.264
Video input	8 channels composite
Video output	HDMI, Composite video, VGA
Minimum recording resolution	352 x 288 (CIF)
Maximum recording resolution	704 x 576 (D1) at 25fps per channel
Maximum recording frame rate	200fps
Hard disk storage	500GB SATA
Back-up	USB & network remote back-up
Network interface	RJ45, 10/100Mbps
Power supply	12VDC 2A (included)
Dimensions	300(W) x 220(D) x 50(H)mm

Camera Specifications	
Sensor	1/3" CMOS
Sensor resolution (H x V pixels)	792 x 698
Horizontal resolution	600TVL
Minimum illumination	0.05Lux
IR illumination	24 LEDs
Effective IR range	Up to 10 metres
Lens type A (2 cameras)	3.6mm lens, 72˚ angle
Lens type B (2 cameras)	6mm lens, 45˚ angle
IP rating	IP66
Power source	12VDC
Current draw	35mA (IR OFF), 180mA (IR ON)
Dimensions	135(L) x 85(H) x 68(W)mm



RELATED PRODUCT...
See page 342 for spare cameras

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-3034	$799.00	$719.00	$679.00
DVR & Camera Kit + 4 Additional Weatherproof Cameras (8 total)	QV-3035	$1,099.00	$989.00	$935.00
DVR & Camera Kit + 17" Monitor	QV-3104	$949.00	$869.00	$829.00
DVR & Camera Kit + 4 Additional Cameras (8 in total) + 17" Monitor	QV-3105	$1,249.00	$1,125.00	$1,065.00

Network 8 Channel DVR Kit with 4 High Grade CCD Cameras

NEW 2013

Combining flexibility with performance this expandable surveillance kit contains an 8 channel DVR, 4 high grade CCD cameras, camera cables, and power supply. With 8 channels the DVR can support additional cameras beyond those included in the package allowing you to add more camera locations or connect specialized cameras to the system. The included CCD cameras are 960H compatible and give superior video quality both day and night.

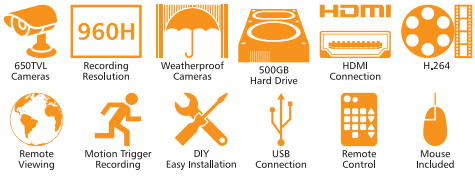
The DVR features include recording of full 960H resolution from all 8 camera inputs, multiple video output formats for local viewing, and an Ethernet connection which can be configured for remote viewing. It is also capable of accepting alarm trigger signals from separate sensors or an existing alarm system and can record 8 audio channels. Supplied with 500GB of storage capable of recording up to 200 hours of continuous video, it has USB support for backup to thumb drive or portable hard drive (not included). By connecting the DVR to your computer network, video can also be viewed remotely via using a web browser or iPhone®/Smartphone application*.

* Free app available for viewing live video. Application based searching and backup requires advanced version at an additional cost.

TECH TIP!
View live footage on a Smartphone

DVR Specifications	
Video compression format	H.264
Video input	8 channels composite
Video output	Composite video, VGA
Minimum recording resolution	352 x 288 (CIF)
Maximum recording resolution	976 x 576 (960H) at 25fps per channel
Maximum recording frame rate	200 fps
Hard disk storage	500GB SATA
Back-up	USB & network remote back-up
Network interface	RJ45, 10/100Mbps
Power supply	12VDC 2.5A (included)
Dimensions	300(W) x 220(D) x 50(H)mm

Camera Specifications	
Sensor	1/3" CCD
Sensor type	Sony Ex-View HAD II 960H
Sensor resolution (H x V pixels)	976 x 582
Horizontal resolution	650TVL (Day) 700TVL (Night)
Minimum illumination	0.01Lux
IR illumination	36 LEDs
Effective IR range	Up to 12 metres
Lens type A (2 cameras)	3.6mm lens, 72˚ angle
Lens type B (2 cameras)	6mm lens, 45˚ angle
Power source	12VDC
Current draw	90mA (IR OFF), 400mA (IR ON)



RELATED PRODUCT...
See page 342 for spare cameras

	Cat.	Qty 1+	Qty 2+	Qty 4+
DVR & Camera Kit	QV-3036	$949.00	$855.00	$809.00

STAND ALONE DVR COMPARISON CHART

Specifications:	QV-3029	QV-8120	QV-8122	QV-3037	QV-8124
Analogue video inputs	4 channels BNC composite	4 channels BNC composite	16 channels BNC composite	8 channel BNC composite	16 channels BNC composite
Digital video inputs	-	-	-	-	16 channels from IP sources at D1 resolution
Video outputs	BNC composite, VGA	HDMI, BNC composite, VGA	HDMI, BNC composite, VGA	BNC composite, VGA, HDMI	HDMI, BNC composite, VGA
Audio inputs	2	4	4	8 RCA	16
Audio output	2	1	1	1	1
Alarm inputs	-	4	16	8	16
Alarm outputs	-	1	3	1	6
Analogue input recording					
Maximum resolution	704 x 576 (D1)	704 x 576 (D1)	704 x 576 (D1)	720 x 576 (D1)	704 x 576 (D1)
Maximum frame rate	100 IPS	100 IPS	400 IPS	200 IPS	400 IPS
Digital input recording	-	-	-	-	
Maximum resolution	-	-	-	-	704 x 576 (D1) with 16 cameras, 1080p with 4 cameras
Maximum frame rate	-	-	-	-	400 IPS at D1 resolution, 100 IPS at 1080p
Hard disk storage	500GB SATA included	500GB SATA included	500GB SATA included	500GB SATA included	1TB SATA included + CD/DVD-RW
Hard disk support	Up to 2TB	Up to 3TB	Up to 2 HDD (2TB ea)	Up to 2TB HDD	Up to 7 HDD (4TB ea)
Network Connection	Gigabit Ethernet via RJ45	Gigabit Ethernet via RJ45	Gigabit Ethernet via RJ45	LAN, DHCP, Dynamic IP DNNS	Gigabit Ethernet via RJ45
Back-up via USB or Network	Yes	Yes	Yes	Yes	Yes
Back-up via CD/DVD-RW or eSATA	-	-	-	-	Yes
Power supply	12VDC 2A (included)	12VDC 3.3A (included)	12VDC 3.3A (included)	12VDC 2A (included)	100-240VAC
Power consumption (excl. HDD)	<10W	20W	15W	<10W	40W
Dimensions	300(W) x 210(D) x 50(H)mm	375(W) x 285(D) x 45(H)mm	375(W) x 285(D) x 45(H)mm	300(W) x 227(D) x 53(H)mm	460(D) x 440(W) x 89(H)mm

* DMSS remote access app available for iOS®, Android™, BlackBerry®, Symbian®, and Windows Mobile® operating systems. See our website for more information.

Economy 4 Channel Digital Video Recorder

NEW 2013

An economical model designed for surveillance systems in the home or office, this four channel DVR is an ideal choice for the budget conscious installer. By omitting advanced features such as alarm interface and digital video output the DVR has video specifications comparable to full feature models while maintaining excellent value for money.

Capable of recording full D1 resolution at 25 frames per second on each channel it is supplied with 500GB of storage for up to 300 hours of continuous video. Recording can be initiated manually, triggered by a timer, or activated by movement in the camera's field of vision. Connect the DVR to a computer network and you can even view video remotely from anywhere in the world using a web browser or Smartphone/ iPhone® (via installed app*).

TECH TIP!
View live footage on a Smartphone

D1 Recording Resolution · 500GB Hard Drive · H.264 · Remote Viewing · Motion Trigger Recording · DIY Easy Installation · USB Connection · Remote Control · Mouse Included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-3029	$279.00	$255.00	$239.00

IP or Network Surveillance

IP surveillance is a digitized and network version of closed circuit television (CCTV). In an IP surveillance system, an IP camera records video footage and the resulting content is distributed over an IP (Internet Protocol) network.

Digitization offers a number of benefits over traditional analogue CCTV including:

- **Improved search capabilities**
- **Greater ease of use**
- **Better quality images and no degradation of content over time**
- **The ability to record and play at the same time**
- **The ability to compress content for improved storage**

Adding networking capabilities to digital CCTV provides additional benefits, including:

- **Improved ability for remote viewing and control. Anyone on the network with password access can potentially see video from any camera connected to the network.**
- **IP Storage makes it possible to store data in any geographical location**
- **Greater ease of distribution. An image of a crime suspect, for example, can immediately be distributed to officials.**
- **The ability to connect to email and other communications systems so that alerts can be sent automatically.**

4 Channel & 16 Channel DVRs

QV-8120

QV-8120 back

QV-8122 back

Ideal for a variety of surveillance installations, these compact DVR systems are little larger than a common DVD player yet they support all the essential features of a full size DVR. Available in 4 or 16 channel versions, both models include standard functions such as a multiplexer for single monitor display of all cameras, Ethernet connection for remote access, and H.264 video compression. They can also support recording and playback of D1 resolution video (704 x 576) on all inputs at 25 frames per channel. An embedded Linux OS efficiently manages simultaneous viewing, playback, recording, and backup through local and remote connections. Playback can be displayed locally through the monitor outputs and remotely via a network connection using a web browser or an iPhone®, iPad®, or Smartphone app*. Both versions have BNC connections for composite video inputs, BNC composite video output, VGA monitor output, event triggered recording (motion, camera activation, or alarm), video loss detection, remote network control or view, and USB back-up support. The 16 channel version also includes a HDMI output capable of sending a full 1080p signal to your monitor, perfect for displaying multiplexed live camera feeds with minimal loss of image quality. Supplied with a 500GB HDD fitted, software and manual on CD, power supply, and quick start guide.

TECH TIP!
View live footage on a Smartphone

- H.264 compression for recording and web transmission
- Variable recording resolution and frame rate
- Local and remote controlling for PTZ cameras
- Built-in web server for network access
- Height equal to 1U rack mounting
- USB support for flash drive, portable HDD, and portable CD or DVD recorder
- Pentaplex operation for simultaneous recording, live view, playback, backup, and remote access

HDMI Connection
QV-8122 only

D1 Recording Resolution · 500GB Hard Drive · H.264 · Remote Viewing · Motion Trigger Recording · DIY Easy Installation · USB Connection · Remote Control

	Cat.	Qty 1+	Qty 2+	Qty 4+
4 Channel Composite	QV-8120	$399.00	$359.00	$339.00
16 Channel BNC Composite	QV-8122	$899.00	$809.00	$765.00

Network DVR

STAND ALONE DVRS (CONTINUED)

8 Channel Digital Video Recorder

NEW 2013

A model designed for surveillance systems in the home or office, this eight channel DVR is an ideal choice for the budget conscious installer who still needs reasonable performance. Includes advanced features such as eight alarm inputs, and one output, eight channel audio recording, HDMI and VGA outputs. The DVR has video specifications similar to full feature models while maintaining excellent value for money. Capable of recording full 960H or D1 resolution at 25 frames per second on each channel it is supplied with 500GB of storage for up to 300 hours of continuous video. Recording can be initiated manually, triggered by a timer, or alarm input, or activated by movement in the camera's field of vision. Connect the DVR to a computer network and you can even view video remotely from anywhere in the world using a web browser or Smartphone/iPhone® (via installed app*).

- Mobile Surveillance supports Windows mobile, Symbian, iPhone®, Blackberry and Android
- Recording mode: Continuous/Manual/Motion detect /Sensor/Alarm recording
- Back-up USB & network remote back-up
- PTZ control: Built in RS485, supports Pelco-P & Pelco-D
- 2 USB ports for mouse and back-up

DVR Specifications	
Analogue video inputs	8 channels BNC composite
Digital video inputs	-
Video outputs	BNC composite, VGA HDMI
Audio inputs	8 (RCA Connection)
Audio output	-
Alarm inputs	8
Alarm outputs	1
Analogue input recording	
Maximum resolution	720 x 576 (D1)
Maximum frame rate	25fps
Digital input recording	
Maximum resolution	-
Maximum frame rate	-
Hard disk storage	500GB SATA
Hard disk support	Up to 2TB
Network Connection	LAN, DHCP, Dynamic IP & DDNS
Back-up via USB or Network	Yes
Back-up via CD/DVD-RW or eSATA	-
Power supply	12VDC 2A (included)
Power consumption (excl. HDD)	-
Dimensions	300(W) x 227(D) x 53(H)mm

TECH TIP!
Too complicated? See Tech Tip on page 347

1 YEAR WARRANTY

* Note: Free app for viewing live video available for download.

960H Recording Resolution · 500GB Hard Drive · H.264 · Remote Viewing · Motion Trigger Recording · Remote Control · Mouse Included · HDMI HDMI Connection

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-3037	$499.00	$449.00	$425.00

Professional Hybrid Digital Video Recorder (DVR) - 16 Analogue + 16 IP Channels

Capable of simultaneously recording video from a whopping 32 cameras, this DVR system will suit the most complex of surveillance applications. With 16 analogue camera inputs and an additional 16 IP camera inputs it can handle all your video surveillance requirements in a single system. Powered by a dual core CPU running an embedded Linux OS it has enough power to support recording and playback of video from all channels at D1 resolution (704 x 576) and display all 32 cameras on one screen using advanced multiplexing functions. Along with all the advanced features it also includes HDMI and composite video outputs, VGA monitor output, multiple recording modes, video loss detection, remote network access, and USB back-up support. Live video and playback can be displayed locally through multiple video outputs and accessed remotely via a network connection using a web browser or an iPhone®, iPad®, or Smartphone app*. Video is stored on the included 1TB HDD which can be supplemented by additional SATA drives to a total of 6 drives, or 8 with the removal of the DVD burner. Each port is capable of supporting a 3TB drive allowing the internal storage to be upgraded to a massive 24TB. Local backing up of recorded surveillance is handled through a built-in burner for transfer to DVD and multiple USB ports for transfer to a flash drive or portable HDD. For larger volumes of data there is also an eSATA port for high speed transfer to portable hard drives. Remote transfer options are also covered with a Gigabit Ethernet connection enabling remote control and transfer of recorded video to a local or remote computer system. Supplied with a 1TB HDD fitted, software and manual on CD, and quick start guide.

- H.264 compression for recording and web transmission
- Variable recording resolution and frame rate
- Manual, timer, and event recording modes
- Local and remote controlling for PTZ cameras
- Built-in web server for network access
- Dimensions equal to 2U rack mounting
- Event log and/or recording from motion detection, alarm trigger, and camera activation
- USB support for flash drive, portable HDD, and portable CD or DVD recorder
- Pentaplex operation for simultaneous recording, live view, playback, backup, and remote access
- Supports IP cameras manufactured by Arecont Vision, AXIS, Canon, Dahua, Dynacolor, Onvif, Panasonic, Samsung, Sanyo, and Sony

TECH TIP!
View live footage on a Smartphone

1 YEAR WARRANTY

* DMSS remote access app available for iOS®, Android™, BlackBerry®, Symbian®, and Windows Mobile® operating systems. See our website for more information.

D1 Recording Resolution · 1TB Hard Drive · H.264 · Remote Viewing · Motion Trigger Recording · DIY Easy Installation · USB Connection · Remote Control · HDMI HDMI Connection

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QV-8124	$1,499.00	$1,349.00	$1,275.00

AV SENDER FOR CAMERAS

2.4GHz CCTV Wireless AV Sender - DIGITAL

Wirelessly transmits DIGITAL high resolution D1 images (720 x 576) to a digital video recorder up to 300m away from the camera source. This provides an excellent solution for troublesome CCTV installations that require cabling in wall cavities where only a garden gnome could fit. Due to the sometimes "crowded" nature of the 2.4GHz band this unit employs FHSS which hops frequencies to avoid interference. This feature also adds a much needed layer of a security by making the signals very difficult to intercept. Each unit features mounting holes for secure attachment to a wall or ceiling, an antenna for each unit, and compact 9VDC power supplies making installation a breeze.

Specifications	
Operation frequency range	2400-2483MHz
Channel switching	FHSS mode up to 80 channels
Video modulation/ demodulation type	BPSK, QPSK, 16-QAM
RF bandwidth	3Mbps
Transmission range	300m in clear line of sight

Video Receiver	
Voltage	9VDC - 12 VDC (9VDC power supply included)
Supply current	600mA max
Sensitivity	80dBm
Output image resolution	720 x 480 (D1) at 30fps, 720 x 576 at 25fps
Video output signal level	1Vp-p,typ
Video output impedance	75ohm
Output video/audio jack	BNC
Antenna gain	2dBi
Antenna port impedance	50ohm
Dimensions (excluding antenna)	163(L) x 97(W) x 48(H)mm

Video Transmitter	
Voltage	9VDC - 12 VDC (9VDC power supply included)
Supply current	600mA max
Transmission powe	20dBm
Video input impedance	75ohm
Input video/audio jack	BNC
Antenna gain	2dBi
Antenna port impedance	50ohm
Dimensions (excluding antenna)	163(L) x 97(W) x 48(H)mm

TECH TIP!
2.4GHz DIGITAL

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3201	$199.00	$178.95	$158.95

1 YEAR WARRANTY

MONITORS

7" TFT LCD Widescreen Colour Monitor with IR Remote

It will deliver high resolution pictures in widescreen format and clear sound reproduction through its inbuilt speaker. It is extremely lightweight and is suitable for all sorts of mobile and fixed monitoring applications. Suitable for in-car and home entertainment, use it to watch DVDs, PS2®, XBOX®, etc. Two RCA composite video inputs and one audio input are provided for a multi source system. This is truly a versatile monitor, it has low power consumption, wide viewing angle, and is NTSC and PAL compatible. It is equipped with On Screen Display enabling the user to easily control the colour, contrast, hue, brightness, and volume. A very slim and small infrared remote control is included. It has reverse image capability adjustable by pressing a button. Unit comes with an adjustable swivel bracket with double sided tape for adhesion on clean flat surfaces. A 4 pin mini din to 2 RCA and power cable is also supplied.

*Works with most, but not all widescreen sources. Will default to modified widescreen in some cases.

Specifications	
System	NTSC/PAL
Power input	12VDC
Power consumption	10W
Video input	Composite video signal 1Vpp 75 Ohm
Audio input	10dB (10k Ohm)
Operating temperature	-10˚C to + 40˚C
Screen size	7" (diagonal width)
Display method	TFT Active matrix system
Resolution	1140(H) x 234(V)
Weight	800g

Includes remote

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3752	$99.00	$89.95	$78.95

9" LCD Colour Monitor

Featuring multisource inputs and reverse image function, it also doubles as a reversing camera monitor. Adjust the volume, colour, contrast, brightness and select your AV input with the front panel controls or simply use the slimline remote control. The tilting bracket gives you several in-car options, including dash and headrest mounting.

- NTSC/PAL system
- 9" widescreen - 4:3 & 16:9 switchable format
- 800 x 480 display resolution
- Dual video and single audio input leads
- Front panel AV input and audio output
- 12VDC power input, 12W power consumption
- Includes mounting bracket and remote control

This 9" widescreen LCD delivers crisp high resolution images

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QM-3761	$119.00	$106.95	$94.95

17" ASUS LCD Colour Monitor

NEW 2013

High resolution slimline monitor suitable for surveillance applications. Ideal for use with our range of DVR camera kits. Its 4:3 aspect ratio means the camera vision won't appear distorted or stretched, which may occur with 16:9 ratio monitors.

- Colour Shine Technology

Specifications	
Panel Size	17.0" (43.2cm)
True Resolution	1280x1024
Pixel Pitch	0.264mm
Brightness (Max.)	250 cd
Contrast Ratio (Max.)	1000:1
ASUS Smart Contrast Ratio (ASCR)	50000000:1
Display Colours	16.7M
Response Time	5ms
Input	VGA
Dimensions	378(W) x 315(H) x 62(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+
	QM-3577	$199.00

MINI SURVEILLANCE CAMERAS

Mini CCTV 420TV Lines Cameras

Quality Sharp colour CCD cameras, ideal for use in retail stores, home security, remote monitoring or covert applications. Both feature adjustable focus lens and composite video output which can feed into the AV inputs on any DVR or TV. Requires a 12VDC regulated power supply - use MP-3011. Three models to choose from with options of pinhole lens or IR illumination.

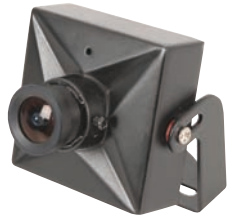
MINI COLOUR CCD CAMERA

Cat QC-3690

1 YEAR WARRANTY

SHARP SENSOR INSIDE

Specifications	
Sensor	1/3"
Sensor brand	Sharp
Resolution	420 TV Lines
Power required	12VDC
Current draw	250mA
Video output	1Vpp, 75 ohm
Min. Illumination	0.8Lux @ f1.2
Lens	3.6mm
Dimensions	36(W) x 36(H) x 15.9(D)mm



MINI COLOUR PINHOLE CAMERA

Cat. QC-3692

1 YEAR WARRANTY

Specifications	
Sensor	1/3"
Sensor brand	Sharp
Resolution	420 TV Lines
Power required	12VDC
Current draw	250mA
Video output	1Vpp, 75 ohm
Min. Illumination	0.8Lux @ f1.2
Lens	3.7mm(pinhole lens)
Dimensions	36(W) x 36(H) x 15.9(D)mm

MINI COLOUR CCD CAMERA WITH IR

Cat. QC-3694

NEW 2013

1 YEAR WARRANTY

Specifications	
Sensor	1/3"
Sensor brand	Sharp
Resolution	420 TV Lines
Power required	12VDC
Current draw	320mA
Video output	1Vpp, 75 ohm
Min. Illumination	0Lux @ f1.2
Lens	3.6mm
Dimensions	55(H) x 42(W) x 15(D)mm

		Cat.	Qty 1+	Qty 2+	Qty 4+
Colour CCD	420TVL	QC-3690	$49.95	$44.90	$42.45
Colour Pinhole	420TVL	QC-3692	$49.95	$44.90	$42.45
NEW Colour CCD with IR LEDs	420TVL	QC-3694	$49.95	$44.90	$42.45

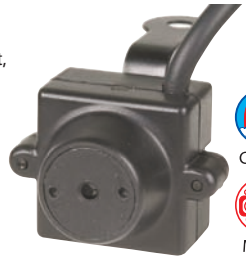
PINHOLE LENS SURVEILLANCE CAMERAS

A pinhole lens provides a general, wide view, and generally requires only a 1mm viewing hole, which is ideal for covert or unobtrusive surveillance. Mount one near the front door to check on visitors, in the baby's room to keep an eye on a sleeping child, or near a window to watch over the backyard swimming pool. The cameras have a composite video output so they can be connected directly to a VCR or the AV input of a normal TV.

Colour CMOS Pinhole Camera in Mini Case - Audio

- Built in Audio Electret microphone
- Operates between 6 to 12 volts
- Includes 200mm lead with 2.1mm DC socket, RCA audio socket and RCA video socket

Specifications:	
Type	Colour
Sensor	1/4" CMOS
Sensor brand	Omnivision
Sensor resolution (HxV pixels)	628 x 582
Resolution (Horizontal TVL)	380
Min illumination (lux)	2
Power Requirement	6-12VDC
Current draw	30mA
Dimensions (mm)	20 x 20 x 19
Recommended power supply	MP-3011



Colour

Micro

1 YEAR WARRANTY

		Cat.	Qty 1+	Qty 2+	Qty 4+
CMOS Colour	380TVL	QC-3491	$39.95	$35.90	$33.90

Outdoor Surveillance Cameras

OUTDOOR SURVEILLANCE CAMERAS

CMOS Cameras with IR Illumination

Versatile economical CMOS surveillance cameras with IR illumination, designed for quick and easy installation in domestic and small business surveillance systems. Available as indoor dome or outdoor weatherproof models, both versions are suitable for use on stand-alone monitors or as an additional camera for a DVR system. Supplied with power supply and combined video and power cable with standard BNC and 2.1mm DC connections.

QC-3239

Specifications	
Resolution	380TV lines
Operation	Day/night
Lens	6.0mm/45˚
Power requirements	12VDC
Current draw	300mA

QC-8635

CMOS OUTDOOR CAMERA WITH IR ILLUMINATION
- Dimensions: 85(L) x 58(Dia)mm

Cat. QC-3239

CMOS DOME CAMERA WITH IR ILLUMINATION
- Dimensions: 100(Dia) x 70(H)mm

Cat. QC-8635

1 YEAR WARRANTY

	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
380TVL	Bullet	QC-3239	$59.95	$53.95	$47.90
380TVL	Dome	QC-8635	$59.95	$53.95	$50.95

High Resolution CMOS Cameras with IR Illumination

Robust high resolution security cameras suitable for shopping centres, banks, schools, hotels, etc. Available in a weatherproof black anodised case or a neat indoor dome they feature a high quality colour CMOS sensor and IR LEDs for night time illumination. With a composite video output for easy integration into existing surveillance setups it is also supplied with a suitable power supply and 18m combined video and power lead.

Specifications	
Sensor	1/3" CMOS
Sensor resolution	(H x V pixels) 792 x 698
Horizontal resolution	600TVL
Minimum illumination	0.05Lux
IR illumination	24 LEDs
Effective IR range	Up to 10 metres
Lens	6mm / F2.0
Lens angle	45˚
Power requirement	12VDC
Current draw	35mA (IR OFF), 180mA (IR ON)

QC-8632

HIGH RESOLUTION CMOS OUTDOOR CAMERA WITH IR ILLUMINATION
- IP rating: IP66
- Dimensions: 135(L) x 85(H) x 68(W)mm

Cat. QC-8632

QC-8633

HIGH RESOLUTION CMOS DOME CAMERA WITH IR ILLUMINATION
- Dimensions: 110(Dia) x 85(H)mm

Cat. QC-8633

NEW 2013

1 YEAR WARRANTY

	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
600TVL	Bullet	QC-8632	$99.00	$88.95	$78.95
600TVL	Dome	QC-8633	$99.00	$88.95	$83.95

600 TVL Weatherproof IR Day/Night Camera with Dot-Matrix IR LED

NEW 2013

Built to withstand common weather conditions the camera comes housed inside a weatherproof case with the latest dot-matrix IR LED, a fixed 6mm lens and a 600TVL resolution. In complete darkness is where the camera, truly sets itself apart from the others. Using a high power IR LED provides 120 of horizontal coverage and produces an infrared light output equivalent to the combined output of many ordinary IR LEDs, turning night into day.

Specifications	
Image sensor	1/3" Colour HDIS CMOS
Horizontal resolution	600TVL
Total pixels	480(D) x 720(W)
TV system	PAL/NTSC
Lens	6mm
IR LED	1 x 6mm IR LED
IR distance	30m
Sync system	Internal
AGC	auto
Day/Night	IR cut filter with auto switch
Usable illumination	0.1Lux @ F1.2 (0 Lux IR LED on)
S/N ratio	>60dB
Video output	Composite signal (1.0Vp-p, 75Ohms)
Electronic shutter time	PAL: 1/50s - 1/100,000s (auto); NTSC 1/60s - 1 /100,000s
Operation temperature	-10°C - 50°C TH95% Max.
Power requirement	12VDC
Current draw	800mA
Dimensions	155(L) x 87(W) x 73(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8627	$99.95	$89.95	$84.95

High Grade CCD Cameras with IR Illumination

NEW 2013

Get superior quality surveillance footage with the convenience of a ready to go package by using these high grade CCD cameras. Available as an indoor dome or weatherproof outdoor model, both feature Sony® Ex-View HAD II CCD sensors and Effio(TM) DSP to provide superior video quality. With a built-in array of infrared LEDs this premium image sensor will also provide excellent low light vision ensuring high quality video is captured day or night. Supplied with power supply and 18m combined video and power lead, they have a BNC composite video output for easy integration into existing surveillance systems.

QC-8634

Specifications	
Sensor	1/3" CCD
Sensor type	Sony Ex-View HAD II 960H
Sensor resolution (H x V pixels)	976 x 582
Horizontal resolution	650TVL (Day) 700TVL (Night)
Minimum illumination	0.01Lux
IR illumination	36 LEDs
Effective IR range	Up to 12m
Lens	6mm
Lens angle	45˚
Power source	12VDC
Current draw	90mA (IR OFF), 400mA (IR ON)

QC-8636

HIGH GRADE CCD OUTDOOR CAMERA WITH IR ILLUMINATION
- Dimensions: 145(L) x 85(H) x 68(W)mm

Cat. QC-8634

HIGH GRADE CCD DOME CAMERA WITH IR ILLUMINATION
- Dimensions: 120(Dia) x 90(H)mm

Cat. QC-8636

1 YEAR WARRANTY

	Type	Cat.	Qty 1+	Qty 2+	Qty 4+
650TVL	Bullet	QC-8634	$149.00	$133.95	$118.95
650TVL	Dome	QC-8636	$149.00	$133.95	$126.95

WIRELESS CAMERA & RECEIVER

2.4GHz Digital Wireless Camera with Receiver

NEW 2013

Adding a wireless camera to a surveillance system doesn't get much easier than this pack. The colour CCD camera has a built-in transmitter and the compact receiver connects directly to the BNC fitting on your existing monitor or recorder system. Using digital 2.4GHz transmission to minimise interference, the camera will transmit signals up to 100m distance. An array of infrared LEDs allows the camera to operate day or night and it is housed in a weatherproof enclosure.

Note: Product may vary to one shown.

Camera Specifications	
Sensor	1/3" Sony® CCD
Sensor resolution (H x V pixels)	640 x 480
Horizontal resolution	420TVL
Minimum illumination	0.01Lux
IR illumination	24 LEDs
Effective IR range	Up to 10 metres
Lens	f3.6mm / F2.0
Lens angle	90˚
IP rating	IP66
Power source	12VDC
Current draw	35mA (IR OFF), 180mA (IR ON)
Dimensions	135(L) x 85(H) x 68(W)mm

Receiver Specifications	
Output	BNC composite
Power source	5VDC
Current draw	150mA
Dimensions	60(H) x 47(W) x 15(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3657	$229.00	$209.00	$194.95

TECH TIP

960H Video Surveillance Technology

With continuous advances in digital video sensor technology the weak point in many systems is becoming the analogue composite video cable connecting from the camera to the recorder. Without switching to IP based cameras and rewiring the building or forking out buckets of cash for HD-SDI systems, one the best options currently available is to use 960H video technology.

Cameras with 960H video sensors contain a greater number of horizontal pixels on the image sensor to capture more raw optical information. Combined with a high grade digital signal processing chip such as the Sony® Effio™ series, the corresponding analogue signal contains more detail within the video stream which corresponds to a greater number of TV lines. When this reaches a suitable 960H compatible digital video recorder system the video stream is converted back to digital video information with the greatest amount of picture quality preserved throughout the transfer.

IP68 3-Axis Cameras with Concealed Cable Bracket

High quality IP68 rated cameras with 3-axis movement through a wide range. The power and video cables exit through the base, so are completely concealed from prying cutters. The camera bodies themselves are very compact so will fit unobtrusively into your surveillance setup. They're also equipped with IR LEDs so will work in darkness at up to 20 metres range.

- Models include high resolution 550TVL, an economical 380TVL.

3-AXIS OUTDOOR IR CAMERA 380TVL
Cat. QC-8611

3-AXIS OUTDOOR IR CAMERAS 550TVL
Cat. QC-8612

SONY SENSOR INSIDE

Specifications	QC-8611	QC-8612
Sensor	1/4"	Sony 1/3"
Sensor brand	Sony SuperHAD	Sony ExView HAD II
Sensor resolution (H x V pixels)	510 x 492	976(D) x 582(W)
Resolution (horizontal TV lines)	380	650 (day) 700 (night)
Minimum illumination (lux)	0.1 (IR off) / 0 (IR on)	0.01 (IR off) / 0 (IR on)
Lens	6.0mm	6.0mm
Power requirements	12VDC	12VDC
Current draw	315mA	340mA
Dimensions (mm)	70(L) x 53(W) x 78(H)	70(L) x 53(W) x 78(H)
Recommended Power Supply	MP-3011	MP-3011

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
380TVL	QC-8611	$129.00	$115.95	$109.95
650TVL	QC-8612	$249.00	$225.00	$215.00

40m Vari-Focal Pro IR Camera

A quality camera with a number of unique features that make it ideal for long range outdoor surveillance. It's housed in a robust aluminium case that provides excellent cooling performance while maintaining the integrity of the IP68 rating. The Sony SuperHAD sensor and the camera's 42 infrared LEDs enable the system to capture images up to 40 metres away in total darkness. The IR LEDs can be switched from low, medium or high illumination for different distances. The camera is supplied with sun hood, mounting bracket and hardware.

- Auto iris
- Flickerless
- ICR
- 2 Stage Auto gain control
- Back light compensation

SONY SENSOR INSIDE

Specifications	
Sensor	1/3"
Sensor brand	Sony ExView HAD II
Sensor resolution (H x V pixels)	976(D) x 582(W)
Resolution (Horizontal TV lines)	650 (day) 700 (night)
Minimum illumination	0.02 lux (IR off), 0 lux (IR on)
Lens	9.0-22.0mm/F2.0 Autoiris with ICR
IR range	40m
Power requirements	12VDC
Current draw	840mA max
Recommended power supply	MP-3486
Dimensions	180(L) x 106(W) x 110(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
650TVL	QC-8613	$349.00	$315.00	$299.00

PRO CAMERA LENSES

CS Mount CCTV Lenses for Professional Surveillance Cameras

Series of CS mount CCTV lenses designed to match our range of HIKVISION professional CCD Cameras. Selecting the appropriate lens allows you to optimise the surveillance coverage of your cameras. 3 versions available with fixed aperture of F1.2 and various focal lengths to give different viewing angles. Focus is easily adjusted on all models with a thumb screw to lock position once it is set correctly.

Cat.	Focal Length	1/3" Sensor	1/4" Sensor	Dimensions
QC-3341	4mm	59	44	28(Dia) x 27.3(L)mm
QC-3343	6mm	43	32	28(Dia) x 30(L)mm
QC-3346	8mm	33	25	28(Dia) x 30(L)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
4mm	QC-3341	$24.95	$22.35	$20.95
6mm	QC-3343	$24.95	$22.35	$20.95
8mm	QC-3346	$24.95	$22.35	$20.95

PROFESSIONAL SURVEILLANCE CAMERAS - CCD

Professional 650TVL Dual Voltage Effio-E CCD Camera

A high quality professional 650TVL security camera which utilises Sony®'s new Effio-E technology. It allows for high resolution images with excellent colour reproduction, very high sensitivity and S/N ratio so images don't appear grainy. It also provides adjustable privacy masking for blocking out certain parts of the picture and motion detection for extra security. A myriad of video functions are included.

SONY SENSOR INSIDE

Specifications	QC-8628
Motion detection	4 free areas (area size adjustable)
Privacy masking	8 areas (area size adjustable)
White balance	ATW / Manual / Push / ANTI CR / User1 / User2/ Push lock
Back light compensation	On / Off
Digital noise reduction	On / Off
Adaptive Tone Reproduction (ATR)	On / Off
IR Optimiser function	On / Off
Freeze image	NTSC: 1/100, PAL: 1/120
Onscreen display for setup	Yes

Professional 650TVL Dual Voltage Wide Dynamic Range CCD Camera

Utilises a highly sensitive colour Sony® 1/3" interline transfer CCD producing 650 lines of horizontal resolution. The super wide dynamic range technology is capable of capturing both high and low luminance subjects under varying conditions. Low-light performance can be improved with the digital slow shutter feature which reduces the image refresh rate and increases the camera sensitivity. Motion detection is also included for more comprehensive monitoring. An alert is issued when movement is detected. The camera can be remotely controlled through an RS-485/422 interface and can be powered either from a 12VDC or 24VAC power source.

SONY SENSOR INSIDE

Specifications	QC-8629
Privacy masking	15 areas (area size adjustable)
White balance	Auto / Indoor / Outdoor / Manual / Push auto
Back light compensation	On/Off
Digital zoom	16x
Digital noise reduction	Low / Mid / High
Mirror image	Horizontal / Vertical / Rotate
Freeze image	On/Off
Remote control	RS-485/422
Onscreen display for setup	Yes

Specifications	QC-8628	QC-8629
Sensor	1/3" Colour Sony® ExView HAD II CCD	1/3" Colour Sony® Super HAD II Double Density WD CCD
Sensor resolution (H x V pixels)	NTSC: 976x494, PAL: 976x582	NTSC 976x494, PAL 976x582
Resolution (Horizontal TVL)	650TVL	650TVL
Minimum illumination (lux)	0.01 Lux @ F1.2 colour mode	0.01 Lux (Day), 0.003 Lux (Night, 0.0003 Lux (DSS)/F1.2
Iris control	Auto / Manual	Auto/Manual
S/N Ratio	More than 50dB	
Gamma	0.45	0.45
Lens mount	C/CS	C/CS
Power requirements	12VDC/24VAC / consumption: 110mA	12VDC/24VAC / consumption: 6.36W
Recommended power supply	MP-3011	MP-3011
Dimensions	115(L) x 50(W) x 43(H)mm	132(L) x 64(W) x 51(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
650TVL	QC-8628	$199.00	$178.95	$168.95
650TVL	QC-8629	$299.00	$269.00	$255.00

Vari-focal Lenses for Day / Night Cameras

These high grade Korean lens are constructed from ED (extra-low dispersion) glass elements for greatly enhanced low light performance and improved picture quality. Especially suited to our professional type ExView and day / night cameras! Our QC-3353 also includes aspherical elements to further reduce optical aberrations and provide the best possible picture.

2 YEAR WARRANTY

Specifications	QC-3353	QC-3355	QC-3356
Focal Length(mm)	3.0 - 8.0	4.0 - 16.0	5.0 - 50.0
Iris Type	direct drive	direct drive	direct drive
Aperture	F1.0-360	F1.4-360	F1.4-360
Format	1/3"	1/3"	1/3"
Viewing Angle	44.1° - 118.7° diagonal	75.9° - 22.9° diagonal	66.5° - 7.4° diagonal
Weight	53.0g	60.0g	120.0g
Dimensions (mm)	33(dia) x 50(L)	34(dia) x 61(L)	44(dia) x 70(L)
Mounting	CS	CS	CS

	Cat.	Qty 1+	Qty 2+	Qty 4+
Aspherical 3.0-8.0mm	QC-3353	$129.00	$115.95	$109.95
4.0-16.0mm	QC-3355	$99.00	$88.95	$83.95
5.0-50.0mm	QC-3356	$129.00	$115.95	$109.95

Dome Cameras

PROFESSIONAL DOME CAMERAS

3-Axis Colour Dome Cameras

3-axis mechanism provides easy installation and enables you to put the camera's field of view exactly where you need it. Quality Sony sensors and optics. Models include high resolution 550TVL, economical 380TVL and also a dummy version constructed using genuine components (housing, lens, etc.) which is indistinguishable from the real thing once installed.

SONY SENSOR INSIDE

3-AXIS DOME CAMERA 380 TV LINES

Specifications	
Sensor	1/4"
Sensor brand	Sony SuperHAD
Sensor resolution (H x V pixels)	500(D) x 582(W)
Resolution (horizontal TV lines)	380
Minimum illumination	0.1 lux
Lens	3.6mm
Power requirement	12VDC
Current draw	95mA
Dimensions (mm)	110(Dia) x 85(H)
Recommended power supply	MP-3011

QC-8616

QC-8617

3-AXIS DOME CAMERA 650TV LINES

Specifications	
Sensor	1/3"
Sensor brand	Sony ExView HAD II
Sensor resolution (H x V pixels)	976(D) x 582(W)
Resolution (horizontal TV lines)	650 (day) 700 (night)
Minimum illumination	0.01 lux
Lens	3.6mm
Power requirement	12VDC
Current draw	95mA
Dimensions (mm)	110(Dia) x 85(H)
Recommended power supply	MP-3011

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
380TVL	QC-8616	$99.00	$88.95	$83.95
650TVL	QC-8617	$199.00	$178.95	$168.95

3-Axis Vari-Focal Colour Dome Cameras with IR

High quality varifocal dome cameras with 3D gimbal mount enabling the camera to be mounted in almost any direction on a roof or wall. These cameras also feature 20m infrared illumination and varifocal autoiris lenses with ICR.

QC-8618

3-AXIS VARI-FOCAL DOME CAMERA WITH IR 380TV LINES
Cat. QC-8618

3-AXIS DOME CAMERA WITH IR 550TV LINES
Cat. QC-8619

SONY SENSOR INSIDE

NEW LOWER PRICE

QC-8619

1 YEAR WARRANTY

Specifications	QC-8618	QC-8619
Sensor	1/4"	1/3"
Sensor brand	Sony SuperHAD	Sony ExView HAD II
Sensor resolution (H x V pixels)	500 x 582	976(D) x 582(W)
Resolution (horizontal TV lines)	380	650 (day) 700 (night)
Minimum illumination	0.1 lux (IR off) / 0 lux (IR on)	0.01 lux (IR off) / 0 lux (IR on)
Lens	2.8-10.5mm with ICR	2.8-10.5mm with ICR
Power requirements	12VDC	12VDC
Current draw	375mA	370mA
Dimensions (mm)	110(Dia) x 85(H)	110(Dia) x 85(H)
Recommended power supply	MP-3486	MP-3486

	Cat.	Qty 1+	Qty 2+	Qty 4+
380TVL	QC-8618	$159.00	$142.95	$134.95
650TVL	QC-8619	$269.00	$245.00	$229.00

Colour Dome Camera Kit with 2 Wire Connection

A simple 2 wire combined arrangement for power and video make this system a snap to install. The system uses a CMOS image sensor with 360 TV line resolution. The main unit will automatically sense signal cable tampering or incorrect wiring and alert you with a warning signal. Kit includes camera, system unit, 25m of connecting cable, and mains adaptor.

Colour

- CMOS sensor
- 360 TV lines

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
Colour Dome Kit	QC-3264	$49.95

Colour Armour Dome (Vandal-Resistant) Camera

An extremely robust camera for use where vandalism is likely at a breakthrough price. The dome of this camera is made of reinforced polycarbonate and is designed to withstand a 300kg impact without cracking. The base is made of solid diecast aluminum.

Specifications:	
Sensor	1/4"
Sensor brand	Sharp®
Sensor resolution (HxV pixels)	512 x 582
Resolution (Horizontal TVL)	350
Min illumination (lux)	1
Power requirement	12VDC
Current draw	110mA
Weight (grams)	-
Dimensions (mm)	92(Dia) x 70(H)
Recommended power supply	MP-3011

SHARP SENSOR INSIDE

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
350TVL	QC-3293	$99.00	$88.95	$83.95

3-Axis Vandal Resistant Infrared Dome Camera

Housed in a very tough diecast aluminium case, O-ring sealed and protected by a polycarbonate dome, this is the ideal camera for areas where vandals might want to not be on candid camera. The 24-LED IR illuminator ensures you'll catch them in the act even in total darkness.

- 3 axis adjustment
- Varifocal lens with ICR
- Autoiris

Specifications	
Sensor	1/3"
Sensor brand	Sony ExView HAD II
Sensor resolution (H x V pixels)	976(D) x 582(W)
Resolution (Horizontal TV lines)	650 (day) 700 (night)
Min illumination	0.01 lux (IR off) / 0 lux (IR on)
Lens	3.7-12mm with ICR
Power requirements	12VDC +/- 10%
Current draw	340mA (IR on)
I/R Range	Up to 20 metres
Dimensions (mm)	145(Dia) x 110(H)
Recommended power supply	MP-3486

SONY SENSOR INSIDE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
650TVL	QC-8620	$349.00	$315.00	$299.00

Network Connect Vandal Proof Mini Dome Camera 2MP - 1080p

Access your CCTV system via the Internet or your local intranet. Connect a few of these dome cameras to your Ethernet switch and you can be up and running in a matter of minutes. It is designed to take advantage of power over Ethernet to reduce installation costs and setup hassles. You can access the camera through a web browser by entering in the IP address. Snapshots can be taken with ease and the scheduled recording feature will capture move files in H.264 format for reviewing later.

- Processor: TI DaVinci Series DSP
- Operating System: Embedded Linux
- Power supply: 12VDC, PoE
- Power consumption: < 4W
- Dimensions: 110(Dia) x 54(H)mm

Network
- Ethernet: RJ-45 (10/100Base-T)
- Bonjour, ONVIF
- Network functions: Ipv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, UDP, SMTP, NTP, DHCP, DNS, PPPoE, DDNS, FTP, IP Filter, QoS,
- Remote Operation: Monitor, playback, system setting, file download, log information, maintenance & upgrade

TECH TIP!
HD 1080p

TECH TIP!
Easily connects to our hybrid DVR QV-8124 on page 340

Auxiliary interface:
- MicroSD Card: Max 32GB local storage

Camera Specifications	
Image sensor	1/3" 2.0 Megapixel SONY progressive scan Exmor CMOS
Effective shutter	Auto/manual, 1-3 1/10000s
Min Illumination	0.2LUX/F1.6(Color),0.01LUX/F1.6(B/W)
Signal noise ratio	>50dB
Gain control	Auto/manual
White balance	Auto/manual
Lens mount	M12
Power requirement	12VDC
Current draw	350mA

Video Specifications	
Video compression	H.264/MJPEG
Image resolution	1080P (1920 x 1080), 720P(1280x720) / D1 (704x576) / CIF (352x288)
Encoding speed	1080p/720p (1-25fps)+D1(1-25fps)
Bit rate	160k-8Mbps
Snapshot:	1fps JPEG capture

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8626	$299.00	$269.00	$255.00

SPECIAL APPLICATION CAMERAS

Bullet Style Camera - IP67

Housed in a rugged, black anodised aluminium case, this quality camera is weather resistant for mounting outside, under eaves, for pool, driveway, or pathway monitoring. It is supplied with a quality, swivel mount base, and mounting screws. Requires a 12VDC power supply. Use our MP-3011, 12V, 500mA plugpack.

- Supply Lead: 300mm, 2.1mm DC socket, BNC socket for video.

Specifications:	
Type	Colour
Sensor	1/3"
Sensor brand	Sony® SuperHAD
Sensor resolution (HxV pixels)	500x582
Resolution (Horizontal TVL)	380
Minimum illumination (lux)	1
Power Requirement	12VDC
Current draw	80mA
Weight (grams)	400gms
Dimensions (mm)	26(Dia) x 87
Recommended Power Supply	MP-3011

SONY SENSOR INSIDE

Weatherproof Camera

TECH TIP!
WATER RESISTANT Rated to IP67

1 YEAR WARRANTY

		Cat.	Qty 1+	Qty 2+	Qty 4+
Colour (Sony Sensor)	380TVL	QC-3488	$99.00	$88.95	$83.95

600TVL Hidden Camera Mirror

NEW 2013

Designed for use where concealed high security is the main requirement such as retail stores, offices, ATMs, museums, art galleries etc. To most people it looks like a simple convex security mirror but embedded behind the patented reflective layer is a 600TVL security camera. The camera features built-in colour digital noise reduction and a 3.6mm lens with standard BNC for connection to your DVR. Ideal size for easy wall mounting.

Specifications	
TV System	PAL/NTSC
Resolution	600TVL
Power Requirement	12VDC (use MP-3011)
Current draw	500mA
Image sensor	1/3" colour Ex-view CCD
Dimensions	350(Dia) x 200(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8631	$199.00	$178.95	$158.95

IR SPOTLIGHT

56 LED Infrared Spotlight - 30 Metres

This long range infrared spotlight will enable an infrared or monochrome camera to operate in zero lux conditions. The beam has a range of 30 metres and will switch on automatically as darkness falls or ordinary lights are turned off. The spotlight is ideal for situation where unobtrusive surveillance is required in dark areas such as warehouses, factories, store rooms, forecourts, etc. Fitted with an adjustable mounting bracket and 450mm power lead terminated with a DC power connector.

- 30 metre range
- 56 high brightness IR LEDs
- Automatic day/night operation
- Approx 75mm dia x 140mm long
- Suitable plugpack - MP-3147 12VDC @ 400mA
- Recommended power supply: MP-3486

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3652	$59.95	$53.95	$50.95

CAMERA POWER SUPPLY

CCD Camera Power Supply

12VDC 500mA regulated plugpack ideal for CCD cameras.

- Terminates to a 2.1mm ID / 5.5mm OD DC plug, centre positive.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	MP-3011	$19.95	$17.70	$15.70

TECH TIP!

CAMERA POWER SOURCE

MOST cameras must be powered by a regulated 12V source. Using an unregulated source voids warranty.

CCTV LEADS & ACCESSORIES

CCD Camera Extension Leads

The easy way to extend the length of CCD camera cables. The leads have 3 joined cables, BNC plug to plug, RCA plug to plug, and DC power male to female. The video cable used is quality RG59U, and the power cable for the shorter lengths is 24 gauge, and the 2 longer lengths are 18 gauge.

Length	Cat.	Qty 1+	Qty 2+	Qty 4+
5 metre	WQ-7275	$19.95	$17.70	$16.70
10 metre	WQ-7276	$24.95	$22.35	$20.95
15 metre	WQ-7277	$34.95	$31.45	$29.90
20 metre	WQ-7278	$44.95	$40.45	$37.95

Economy CCTV Cables

NEW 2013

Make running cables between your cameras and your DVR a breeze using these integrated video and power cables.

CCTV VIDEO AND POWER CABLE
- BNC terminated
- Male DC plug on one end, female DC socket at the other.
- 18m length

Cat. WQ-7279

BNC SOCKET/DC PLUG TO RCA PLUG/DC SOCKET CABLE
- BNC plug and DC Plug for connection to camera
- RCA plug and DC Socket for connection to display
- 18m length

Cat. WQ-7271

NEW LOWER PRICE

	Length	Cat.	Qty 1+	Qty 2+	Qty 4+
Video/Power Cable	18m	WQ-7279	$19.95	$17.70	$16.70
Camera/Display Cable	18m	WQ-7271	$19.95	$17.70	$16.70

CCD Camera Power Extension Lead

Extend the plugpack lead for CCD cameras.

- Consists of 2.1mm male to female.
- Plug OD 5.5mm.

Length	Cat.	Qty 1+	Qty 2+	Qty 4+
5 metre	WQ-7285	$9.95	$8.75	$8.25

Microphone/Amp for CCTV Cameras

Easy add-on mini microphone with built-in amp for cameras that require an audio function. Simple to install and ideal for all surveillance applications.

- High sensitivity microphone (-65dB)
- 12VDC operation
- Length: Approx 500mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3434	$19.95	$17.70	$16.70

DC Power Leads - 2.1mm Plugs to Socket

Run multiple devices from a single power supply or extend the low voltage cable between a plugpack and a device. Ideal for surveillance applications and available in a range of versions to suit many applications. All cables are pre-made with moulded DC plugs and sockets.

- Three types available.
- DC Plug / Socket Dimensions: 2.1(ID) x 5.5(OD) x 10(L)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
1 Socket to 2 plugs - 200mm	WQ-7280	$7.95	$6.95	$6.75
1 Socket to 2 plugs - 2 metres	WQ-7284	$8.95	$7.95	$7.50
1 Socket to 4 plugs - 2 metres	WQ-7281	$9.95	$8.75	$8.25

Video Ground Loop Isolator

Ground loops are a primary cause of poor image quality in CCTV systems. This passive isolator can be easily installed in new or existing system and is useful when video signals are being transmitted between points with different ground potentials.

- Insertion loss 0.5dB
- Frequency response -3dB @ 10MHz
- Input impedance 75 ohm
- Output impedance 75 ohm
- Isolation voltage 600VDC.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3432	$59.95	$53.95	$50.95

Video Baluns & Monitors

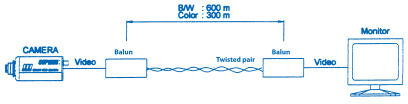
BALUNS

Cat5 to BNC Video Baluns

These devices simplify CCTV cabling and increase transmission distances without the need for video amplifiers. Ideal for use when covering long distances, or where an existing cable can be repurposed to carry the video signal, you simply connect the required balun to at each surveillance device and link the two points using low cost UTP cable such as Cat5, Cat5e, or Cat6. By utilising a single cable to carry multiple signals you can also save a lot of time installing cables and occupy less space in cable ducts. Available in multiple formats to cover a variety of applications, they are all passive devices requiring no power to convert the signals. Depending on how many signals are on one cable they are suitable for carrying video signals for distances up to 300m for colour or 600m for B&W*. In all cases they require an uninterrupted signal path to function, ie the cable can go through a patch panel, but not through a network switch or hub.

- Transmission distances stated are for solid core UTP cables and will be reduced by 20 to 30% if using stranded UTP cable.

TECH TIP!
See page 465 for our AV signal balun range



Single Video Signal Baluns

Designed for direct connection to a single video source, these baluns are great for installations where a single camera is a long distance from the display, or where existing Cat5 cable will save you from running a new coax cable. The flylead twin pack will connect directly to a twisted pair using fast-on terminals. Using the flylead twin pack you can also connect up to four cameras through a single cable by attaching a separate balun to each Cat5 pair.

- Built-in impedance coupler and noise filter
- Transmits video up to 300m for colour and 600m for B&W*

Specifications	
Type	Flylead
Cable connection	Fast-on terminals
Baluns per pack	2
Dimensions	193(L) x 15(W) x 21(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pair	QC-3660	$14.95	$13.35	$12.70

Combination Signal Balun

Allowing complete connection of a camera through a single cable, this balun combines video, power and data/audio signals for transmission over separate pairs of the Cat5 cable. The kit contains a balun for both the transmitter and receiver ends, with all connectors designed for quick installation of your surveillance equipment. Will carry video signals over distances up to 200m, with one kit including a RCA plug for audio signals while the other has a data flylead suitable for items such as PTZ cameras or alarm sensors.

- Suitable for low voltage power
- Short circuit protection for power
- Transmits video up to 200m for colour and 400m for B&W*

Specifications	
Type	Video/Power/Audio
Cat5 connection	RJ45 socket
Video connection	BNC plug
Power connection	2.1mm plug and socket
Auxiliary connection	Audio RCA plug
Balun Dimensions	42(L) x 21(W) x 21(D)mm
Lead length	80mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pair	QC-3662	$29.95	$26.90	$25.45

Multiple Video Signal Baluns

Use one Cat5 cable to connect up to four CCTV cameras. Simplify your CCTV camera installation, reduce costs and increase transmission distance by converting from coaxial to Cat5 cabling. It is also suitable for multimedia presentation, video conferencing and remote monitor (video/audio) applications. Can be used with a four way balun on each end or combined with single termination baluns such as Cat QC-3660 shown above.

- Sold individually
- Includes mounting bracket
- Transmits video up to 300m for colour & 500m for B&W*
- Dimensions: 130(L) x 52(W) x 28(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3664	$29.95	$26.90	$25.45

CAMERA POWER ACCESSORIES

24VAC/DC to 12VDC 300mA Adaptor

This simple looking device consists of a tiny 40 x 25 x 19mm module with 300mm leads connected to each end. On the input side there is a 22AWG terminal block for connecting a 24V AC or DC source. On the output side, there is a 2.1mm DC plug where you have a regulated 12VDC supply, at up to 300mA. The AC input can be 20 - 28V, and the DC input can be 16 - 30V.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3069	$22.95	$20.35	$18.35

AC/DC - DC Converter 24 - 12VDC 1A

Trying to get power for CCTV and security cameras over a long run without losses is challenging to say the least. Solve the problem quickly and easily by sending 24VAC down the long run, then converting it to 12VDC when you get it where you need it.

- Connection is by screw terminals.

Specifications	
Input	20 - 28VAC, 16 - 30VDC
Output	12VDC regulated
Output current	1A max
Dimensions	90(L) x 25(W) x 25(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MP-3350	$34.95	$31.45	$29.90

CCTV Power Distributor Box

Makes distributing power to multiple CCTV cameras a simple matter. Simply connect a common source up to 30VDC and distribute it to up to 9 slave devices. Screw terminal connection.

- Individually protected PTC output
- Individual status LED indicators
- 1 - 30V AC or DC input
- Dimensions: 138(L) x 65(W) x 28(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MP-3351	$39.95	$35.90	$33.90

VIDEO PROCESSOR

Four Channel Colour Video Processor (QUAD)

4 Quad Screen Display

A professional quality 4 channel colour quad processor packed with features you would expect to find in units costing considerably more. The processor will accept up to 4 camera inputs via BNC connections and can display camera images in sequence or a 4-way quad picture. The system incorporates freeze frame, zoom and picture-in-picture as well as signal adjustments for the camera. Camera inputs can also be given a unique eight character name as an aid to image identification. Other features include mirror image, motion detection, detection sensitivity adjustment, timer detection, and a 60 line event log. The system is housed in a slim line metal case and a mains adaptor is included.

- 4 x camera inputs
- Motion detection
- Event log
- Signal adjustment for colour, hue, etc
- Monitor & record outputs
- Size 210(W) x 130(D) x 44mm(H)

Back of unit

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3376	$99.00	$88.95	$83.95

Joule Thief

Makers Name: Reece Jones
Location: Western Australia

I'm Reece Jones from Western Australia and I'm 12 years old. I love Jaycar. Not kidding. It's my favourite store. I found this cool circuit on the internet called a "Joule Thief" and I decided to make it using parts from my local Jaycar Electronics, the Midland branch. I made the circuit into a "Joule Thief Torch".

For more details scan the QR code or go to www.jaycar.com.au/makers

DIY IP CAMERAS

Set up a surveillance system without the burden of running cables. These wireless DIY IP cameras are designed to work with any common household Wi-Fi router to enable quick and easy setup with broad device compatibility. As well as Wi-Fi they all come with ethernet ports if you prefer them wired. We have many models to choose from for varying applications.

All units feature motion alarm detection, and can be easily configured to automatically email and/or upload images to an FTP server at specified intervals when motion is detected. Setup is very simple, just define an SMTP server, email sending address (with authentication details if required) and up to 4 receiving addresses. For FTP setup you will require an FTP server. The device supports DHCP or static IP addressing.

To overcome the problem of accessing your camera externally with a non-static IP address these units all support DDNS which means you can access your camera through a fixed domain (e.g. mycam.ipcam.com) even if your external IP address is constantly changing.

Accessing your camera: You can access the camera through a web browser or an iPhone®/Android app. The web interface will give access to all setup options and camera functions while the phone apps are useful for quickly grabbing snapshots or viewing the camera. There are some free apps available on the appstore and Google Play that can stream video from these cameras. Reecam on the Appstore and IP Cam Viewer Lite on Google Play are both work with these cameras. Free and paid for editions are available.

TECH TIP!
View live footage on a Smartphone

* Note: Microphone and speaker not included

DIY Wi-Fi IP Camera With IR

Our entry level DIY IP camera. Great for checking up on the house while you're out and about.

Specifications	
Compression	M-JPEG Video
Audio*	Two way
Sensor	1.5" Colour CMOS Sensor, 300k Pixels
Lens	3.6mm/F 1.8Cs Lens
Resolution	VGA (640x480) at 30fps QVGA (320 x 240) at 30fps
Infrared	10 x 5 LED Light, O Lux Infrared (open), night visibility up to 15m
Motion Detection	Remote Warning
Wireless Security	WEP, WPA, WPA2
Wireless Distance	>50m (Clear line-of-sight)
Supports	iPhone®, iPad®, Android®, Smartphone control and Monitor
Dimensions	152(H) x 92(W) x 80(D)mm

Pan/Tilt DIY Wi-Fi IP Camera with IR

Pan/tilt functionality so you can change the view angle as you please. Set this camera up inside with a view of the garden and you can remotely check.

Specifications	
Compression	M-JPEG Video
Audio*	One way
Sensor	1/5" Colour CMOS, 300k Pixels
Lens	3.6mm/F 1.8Cs
Resolution	VGA (640x480) at 30fps QVGA (320 x 240) at 30fps
Supports	iPhone®, iPad®, Android®, Smartphone control and Monitor
Dimensions	125(H) x 100(W) x 95(L)mm

Dome DIY Wi-Fi IP Camera with IR LEDs

Suitable for use in retail stores, workshops, or other areas which need to convey a sense of professional monitoring. Though it looks like it can pan, tilt and zoom, it can't. This appearance may be enough of a deterrent.

Specifications	
Compression	M-JPEG Video
Sensor	1/5" Colour CMOS Sensor 300k Pixels
Lens	3.6mm/F 2.4Cs Lens
Visibility	22 IR LEDs, night visibility up to 20m
Resolution	VGA (640x480) at 30fps / QVGA (320 x 240) at 30fps
Modes	50/60Hz
Viewing angle	60 degrees
Min Illumination	0.5lux
Motion Detection	Remote Warning
Supports	iPhone®, iPad®, Android®, Smartphone control and Monitor
Dimensions	130(Dia.) x 75(H)mm

Outdoor DIY Wi-Fi IP Camera with IR

Designed for external use this camera features tough aluminium housing and 24 Infrared LEDs for night monitoring.

Specifications	
Compression	M-JPEG Video
Sensor	1/5" Colour CMOS Sensor, 300k Pixels
Lens	3.6mm/F 1.8Cs Lens
Resolution	VGA (640x480) at 30fps / QVGA (320 x 240) at 30fps
Infrared	24 x LED, O Lux Infrared, night visibility up to 20m
Motion Detection	Remote Warning
Wireless Security	WEP,WPA,WPA2
Wireless Distance	50m (Clear line-of-sight)
Supports	iPhone®, iPad®, Android®, Smartphone control and Monitor
Dimensions	175(L) x 82(W) x 70(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Entry Level	QC-3832	$89.00	$79.95	$75.50
Dome	QC-3831	$89.00	$79.95	$75.50

	Cat.	Qty 1+	Qty 2+	Qty 4+
Pan / Tilt	QC-3834	$119.00	$106.95	$100.95
Outdoor	QC-3836	$149.00	$133.95	$126.95

Pan/Tilt/Zoom DIY Wi-Fi IP Camera - 720p

For flexible monitoring of the home or office a Wi-Fi IP camera is the way to go. This model features a 720p camera that produces bright and sharp vision for you to survey the home or office. The audio is two way, so you can plug in a microphone to hear sound remotely or plug in a speaker to be able to transmit audio to those near the camera. The image can be flipped vertically/horizontally and the luminance/contrast can be adjusted to suit environmental needs.

A range of capture options are built-in. It can trigger the capture of still images or video when motion or sound is detected as well as send an email. It can be setup to capture to a microSD card (available separately), an FTP server, or a samba server. If you have a microSD card inserted and it can't connect to the specified FTP or samba server it will revert to capturing to the microSD card. The sensitivity of the capture source can be adjusted. You can also wire up an alarm (available separately) to this unit and set it to sound when motion or sound are detected.

All these settings are accessed through an attractive easy to use web interface. A mounting bracket is included with the camera if you'd like to fit it to a wall or beam.

Note: Only Internet Explorer can be used with the web interface as it requires the use of a Microsoft only ActiveX plugin.

Specifications	
Image sensor	1/4" Colour CMOS Sensor
Display	1280 x 720 pixels
Lens	f3.6mm 2.5f
Min illumination	0.5 Lux
Lens type	4-9mm zoom lens
Viewing angle	60 degrees
Visibilty	10 x IR LEDs, night visibility up to 15m
Video compression	H264
Frame rate	15FPS(VGA), 30FPS(QVGA)
Still image capture	1280x720pixels
Supports	iPhone®, iPad®, Android®, Smartphone control and Monitor
Dimensions	100(L) x 100(W) x 125(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3838	$199.00	$178.95	$168.95

RELATED PRODUCT...
What is an IP Camera? See page 348

TECH TIP

TOO MUCH TECHNICAL JARGON?

The Jaycar catalogue is the ultimate technical source of all our products. You do not have to understand all aspects of, say, video/camera/recorder systems to enjoy the benefits of these products.
Call in to any of our stores for a jargon-free demonstration. We can analyse your needs in 5 minutes and work out a package for you - 10 minutes max.

IP Cameras

IP CAMERAS (CONTINUED)

Wi-Fi Remote Wireless IP Camera

The smallest IP camera we've ever seen! With its wireless network interface, the Ai-Ball allows you to stream and record audio video images over your network or directly to your Smartphone (iPhone® or Android device) and laptop on the go. Powered by a CR2 battery and coupled with an incredibly compact design means you can easily carry the Ai-Ball around and even put it on your keychain! The Ai-Ball is supported by various mobile and PC applications that enhance and expand the your experience (including some iPhone® apps not included). Stream or record your videos from a remote location even when you are far away from your Ai-Ball (even while overseas) using its infrastructure WAN mode.

Recommended upgrade: QC-3369 Cradle and adapters for Ai-Ball. QC-3369 is supplied with a mains power supply and cigarette plug so you donít have to use CR2 batteries, and is also supplied with a stand for the camera.

Camera Specification	
VGA	640x480, QVGA 320x240, QQVGA 160x120, up to 30fps
View Angle	60˚ / F2.8
Focusing	200mm to Infinity
Video Recorder	Motion JPEG
Typical bit rat (VGA)	standard (2500 kbps), high (1600 kbps)
Typical bit rat (QVGA)	standard (1100 kbps), high (800 kbps)
Typical bit rat (QQVGA)	standard (600 kbps), high (400 kbps)
Video Snapshot	JPEG
Wireless Interface	IEEE 802.11b/g 2.4GHz ISM Band
Wireless Security	WEP 64/128, WPA, WPA2
Wireless Range	Infrastructure: 20m (Typical), Adhoc: 7.5m (Typical)
Infrastructure	54Mbps, max. connection rate, Adhoc: 11Mbps, max. Connection rate (Note: Wireless performance varies with distance and access point usage.)
Antenna	Single, internal
Dimension	Weight 30mm(Diameter) x 35mm(L) / 100g
Voltage	3.0V
Power	Battery Operated - 750mAH (CR2)
Current consumption:	320mA (typical); 350mA (maximum)

RELATED PRODUCT...
See Network connect Vandal Proof Mini Dome Camera on page 344

TECH TIP!
View live footage on a Smartphone

AI-BALL CRADLE + ADAPTORS

A practical and handy stand for your Ai-Ball wireless WI-FI IP camera (QC-3368) which is supplied with a USB cable, a cigarette adapter, and mains adapter. These accessories enable your camera to be powered from a multitude of sources. It's the versatile cradle and power system designed for the Ai-Ball.

Includes:
Bracket for Ai-Ball (QC-3368)
USB mini B plug to A plug cable
Cigarette to USB power supply
Mains to USB power supply

Dimensions of bracket: 75(H) x 55(W) x 55(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Camera	QC-3368	$99.95	$89.95	$84.95
Cradle & Adaptor	QC-3369	$29.95	$26.90	$25.45

1 YEAR WARRANTY

PROFESSIONAL IP CAMERA

1/3" Bullet Mount IP Camera - 720p

NEW 2013

Access your CCTV system via the Internet or your local intranet. Connect a few of these dome cameras to your Ethernet switch and you can be up and running in a matter of minutes. This professional grade IP camera provides high definition 720p video resolution, in a weatherproof housing suitable for mounting under eaves, with IR LEDs for night time illumination This unit will work seamlessly with the QC-8124 Hybrid DVR

General Specifications	
Power Supply	DC12V, PoE(802.3af)
Power Consumption	<6W
Ingress Protection	IP66
Weight	370g
Dimensions	64(Dia.)mm x 145mm

Video Specifications	
Compression	H.264 / MJPEG
Resolution	1.3M(1280x960) / 720p(1280x720) / D1(704x576) / CIF(352x288)
Frame Rate Main Stream	1.3M(1-15fps)/720P(1-25/30fps)
Bit Rate H.264	32k-8192kbps, MJPEG: 32k-12288kbps

Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour
ONVIF	Ver. 2.0
Max. user access	10 users
Supports	Smartphone, iPhone®, iPad®, Android, Windows Phone

Camera Specifications	
Image Sensor	1/3" 1.3MP Aptina CMOS
Effective Pixels	1280(H) x 960(V)
Min. Illumination	
Colour	0. 1LUX/F1.2
B/W	0.005LUX/F1.2; 0LUX/F1.2(IR on)
Max. IR LEDs Length	20m
Focal Length	6mm
Angle of View H	46˚

Cat.	Qty 1+	Qty 2+	Qty 4+
QC-8638	$279.00	$255.00	$239.00

TECH TIP

What is an IP Camera?

An IP camera is a networked digital camera that transmits data over a fast Ethernet link. IP cameras (also called "network cameras") are most often used for IP surveillance, a digitized and networked version of closed circuit television (CCTV).

The benefits of IP cameras over analogue technology include:

- **Remote administration from any location**
- **Digital zoom**
- **The ability to easily send images and video anywhere with an Internet connection**
- **Progressive scanning, which enables better quality images extracted from the video, especially for moving targets**
- **Adjustable frame rates and resolution to meet specific needs**
- **Two way communications**
- **The ability to send alerts if suspicious activities are detected**
- **Lower cabling requirements**
- **Support for intelligent video**

It should be noted that IP surveillance has greater complexity and bandwidth requirements.

The I-thief 2.0

Makers Name: Xavier Roberts
Location: Victoria

I am in year 9 at Templestowe College. The "I-thief 2.0" is a robot I designed and built to complete simple tasks such as moving small objects. Composed of a four servo grabber arm and is equipped with a camera, the I-thief 2.0 is the perfect drone to be sent on a quest...for pizza. I built the frame of the robot out of acrylic, as it is a light, strong material and is capable of being formed into irregular shapes. To control the four servos I built a board incorporating a set of transistors and relays to switch on an interface circuit controlling a set of picaxe modules, and hence the servos.

For more details scan the QR code or go to www.jaycar.com.au/makers

DUMMY CAMERAS

Dummy Dome Camera with Flashing LED and CCTV Sticker

NEW 2013

A simple and effective visual deterrent. This fake but realistic-looking dome camera features a high brightness flashing red 3mm LED, and is supplied with a yellow CCTV warning sticker. Great for home, office, schools or any location to discourage thieves.

- Requires 2 x AA batteries
- Includes mounting hardware
- Sticker dimensions: 110 x 110mm
- Camera dimensions: 127(Dia) x 90(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5332	$14.95	$13.35	$12.70

Dummy Dome Camera Kit with Flashing Sign

A simple and effective visual deterrent, this fake security kit comes with a realistic-looking dummy dome camera and a flashing solar-powered 80 x 80mm LCD warning sign. Great for home, office, schools or any location to discourage thieves.

- Dimensions: 120(Dia) x 70(H)mm
- Battery: 3 x AA batteries

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5324	$24.95	$22.35	$20.95

Dummy Wireless Camera with Flashing LED

NEW 2013

A realistic-looking but fake wireless camera with a high brightness flashing red 3mm LED, which gives the illusion to would-be thieves that they are being watched. The camera position can be adjusted horizontally and vertically for the best angle. Great for home, office, schools or any location to discourage thieves.

- Requires 3 x AA batteries
- Includes mounting hardware
- Camera dimensions (excluding bracket): 155(L)x 60(W) x 50(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5334	$14.95	$13.35	$12.70

Dummy IR Camera

Visible deterrence is probably the most important aspect of security. Most criminals aren't completely stupid - if your premises looks like it has CCTV surveillance, they'll move on to the place that doesn't. These dummy cameras look totally convincing - they have genuine-looking IR LEDs and a real LED that adds to the illusion. Add a couple of warning signs and the baddies will never know the difference.

- Requires 2 x AA batteries
- Mounting hardware included
- UV Stabilised
- Dimensions: 175(L) x 85(Dia)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5325	$24.95	$22.35	$20.95

Dummy IR Camera Kit with Flashing Sign

If your premises looks like it has CCTV surveillance, potential burglars may move on to the place that doesn't. This dummy IR camera kit comes with two dummy cameras and a flashing CCTV sign, the cameras have genuine looking IR LEDs and a real LED that adds to the illusion. The CCTV flashing sign is solar powered and can be changed to not flash by covering the solar panels on the side.

Included:
- 2 x Dummy IR cameras
- CCTV flashing sign
- 2 x CCTV stickers

Specifications:
- Each camera requires 2 x AA batteries
- Mounting hardware included
- Camera Dimensions: 175(L) x 85(Dia)mm
- Flashing Sign Dimensions: 50(L) x 10(W) x 50(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5329	$49.95	$44.90	$42.45

CCTV Installation Guide

This guide explains the various pieces of equipment required, the options available for installation and the different methods of viewing and recording the images. Topics cover camera types, lenses, light levels, power supplies, camera positioning, switchers, monitors and recorders.

- 8 pages
- A4

	Cat.	Qty 1+
	BI-8206	$2.00

WARNING SIGNS & STICKERS

Surveillance Warning Stickers

Make sure people entering your premises know that they will be under video surveillance with this unambiguous message.

INSIDE SURVEILLANCE WARNING STICKER
- UV stabilised for long life
- Black printing on a clear background
- Sticks to inside of window
- Dimensions: 80(W) x 40(H)mm

OUTSIDE SURVEILLANCE WARNING STICKER
- Silver colour
- Sticks to outside of window
- Dimensions: 80(W) x 40(H)mm

LARGE OUTSIDE SURVEILLANCE WARNING STICKER
- Black lettering on white background
- Sticks to outside of window
- Dimensions: 120(W) x 50(H)mm

	Type	Size	Cat.	Qty 1+	Qty 2+	Qty 4+
	Small Inside	80 x 40mm	LA-5106	$2.95	$2.60	$2.30
	Small Outside	80 x 40mm	LA-5107	$2.95	$2.60	$2.30
	Large Outside	120 x 50mm	LA-5108	$3.95	$3.45	$3.15

CCTV Sticker - Large Size

Visible deterrent to intruders. Bright yellow to attract attention. Partner with a dummy camera or two for a complete faux security system or just to warn that the real thing is installed.

- Dimensions: 110 x 110mm

		Cat.	Qty 1+	Qty 4+	Qty 8+
	110 x 110mm	LA-5101	$3.95	$3.45	$3.15

Surveillance Warning Sign 300 x 300mm

Visual deterrents are one of the most effective security measures you can use. This sign will ward off thieves and let them know you have state-of-the-art surveillance on your property -even if you don't. It's made of acrylic, so it's lightweight and durable.

- Dimensions: 300 x 300mm

		Cat.	Qty 1+	Qty 2+	Qty 4+
	300 x 300mm	LA-5115	$14.95	$13.35	$12.70

CCTV Warning Sign

Prominent warning sign for CCTV or dummy surveillance applications. Made from acrylic for durability.

- Dimensions: 300(W) x 210(H)mm

		Cat.	Qty 1+	Qty 4+	Qty 8+
	300 x 210mm	LA-5114	$14.95	$13.35	$11.70

Solar CCTV Warning Sign

A visible deterrent that will really get attention. With a built-in solar cell, this CCTV Warning sign flashes when there is light available. Double sided tape is included for convenient mounting to any surface. Ideal for shops, homes, garages or anywhere you need to advise would-be robbers that you have an expensive CCTV surveillance system. Even if you don't.

- Dimensions: 80(L) x 80(W)mm

		Cat.	Qty 1+	Qty 4+	Qty 8+
	80 x 80mm	LA-5103	$14.95	$13.35	$11.70

Camera Housings & Brackets

CAMERA HOUSINGS

Professional Aluminium Internal / External Camera Housings

These weatherproof enclosures are ideal for adapting any camera, but particularly our Professional range of video cameras for commercial indoor or outdoor use. The enclosures feature solid aluminium construction to protect the camera and a clear glass window protected by an integral sunshade. For indoor use, the sunshade can be easily removed. Waterproof cable entry is achieved with screw down rubber seals, and captive nuts are supplied for mounting.

- Note: Price includes sunshade
- Does not suit cameras with IR LEDs on the front
- Use mounting bracket QC-3337

STANDARD
- Dimensions: 390(L) x 100(H) x 112(W)mm including sunshade QC-3330

IN-BUILT 24VAC HEATER
- Features an internal heater to stop housing humidifying which causes clouding of viewing glass and lens.
- Dimensions: 410(L) x 118(H) x 107(W)mm including Sunshade QC-3331

	Cat.	Qty 1+	Qty 2+	Qty 4+
Standard	QC-3330	$29.95	$26.90	$25.45
In-built 24VAC Heater	QC-3331	$49.95	$44.90	$42.45

DOME CAMERA HOUSINGS

Mini Size Dome Camera Housing

This dome camera housing looks exactly like the real thing, at a fraction of the price. Make your business/home/office look like its under surveillance. Even includes the metal camera case inside though with no lens.

- Can be used with QC-3474 and QC-3494
- Dimensions: 88(dia) x 68(H) mm approx.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5317	$9.95	$8.75	$8.25

Metal Dome Camera Housing - 'L' Type Bracket

This dome camera housing is made with a plastic bracket and a tough plastic dome. It is an "L" type camera housing and can be placed in any right-angled side edge.

- Dome measures approx 70(dia)mm
- Meant to mount high up on a wall
- Dimensions: 100(W) x 125(D) x 63(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5311	$19.95	$17.70	$16.70

Heavy Duty Armour Dome Case

Designed to mount a standard board camera (up to 42mm squared). It's constructed with a strong die-cast aluminium base, and a reinforced polycarbonate dome. The dome can support more than 500kg of pressure before cracking, and can withstand a blow from a 4.5kg sledgehammer. Tamper proof Torx bits are used in the cover, and a large threaded side cable entry is used for security.

Specifications	
Maximum Dome Load	500kg.
Maximum Camera Size	42mm x 42mm board camera
Dimensions	84(H) x 142(dia)mm
Weight	450g

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3328	$29.95	$26.90	$25.45

CAMERA MOUNTS

Ceiling Grid Camera Mounting Bracket

Designed to mount in the ceiling grid of most office and corporate buildings. The bracket supports fittings to mount any of our Professional camera range.
- Bracket height is 70mm and includes a 30mm extension to extend the bracket height to 100mm
- Supplied in beige finish
- 1/4" mount

Adjustable mounting bracket.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3333	$9.95	$8.75	$8.25

Medium Professional Camera Mounting Bracket

Made from impact resistant plastic. It permits a wide range of aiming adjustments to be made and is 155mm long.

- Mounting screws and wall plugs included
- Indoor use preferred
- 1/4" mount

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3335	$9.95	$8.75	$8.25

External CCD Camera Housing Mounting Bracket

This heavy-duty aluminium bracket is designed to mount our large indoor/outdoor professional camera housing and professional range of CCD cameras. It is suitable for either internal or external use and the camera angle is fully adjustable.

- Mounting screws and wall plugs included
- Maximum payload 8kg
- Supplied in silver finish
- Bracket height is 290mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3337	$19.95	$17.70	$15.70

RF BUG AND CAMERA DETECTORS

Camera Detector

Protect your privacy! Covert cameras and listening device are nearly impossible to spot by the naked eye. This handy little unit will detect hidden wired and wireless cameras through the units lens finder. The 6 pulsing LEDs reveals the location of a camera by illuminating it's lens when you look through the lens viewer. Also features a built-in wireless RF detector that provides audible (buzzer) and visual (LED) signal strength indication. Great for detecting wireless transmitters and eavesdropping devices. It even comes with a set of earphones for complete discrete bug detection. Requires 2 x AAA batteries (use our SB-2426).

Specifications	
Laser detection range	0.1 - 10m
RF detection range	0 - 10m
RF frequency range	1.0MHz - 6.5GHz
Dimensions	85(H) x 56(W) x 18(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	QC-3506	$99.00	$88.95	$78.95

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

*ABN will be required - see our website or Store Manager for further details.

COVERT SURVEILLANCE

4GB Ultimate "Spy" Watch Camera

This unit resembles a typical "chrono" type aviator/divers wristwatch. It even keeps good time! More importantly, it will record video, in AVI format, 640 x 480 resolution. That's up to 60 minutes, also audio, subject to the unit being fully charged via the USB port. It will also take about 1200 still pictures!

You can download your video, audio or stills via a 2.5mm to USB lead supplied. Also supplied is USB driver software.

Even though this looks like a 30m+ divers watch it is not waterproof.

- Watch bezel measures 42 (Dia.) x 15(D)mm
- Gift boxed

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8014	$69.95	$62.95	$59.50

8GB Pen Video Camera - 720p

Maxwell Smart would have loved to have one of these to go with his shoe phone. Capture video, audio or still photos discreetly and quickly, then transfer them onto your PC via USB. The built-in memory stores up to 8GB, so there's plenty of capacity for taking electronic notes at your next meeting or protecting your legal rights by capturing a video or audio record of an event. It also functions as a conventional ballpoint pen.

- One-button operation
- Recharges via USB
- Record up to 1 hours of video
- Up to 2000 photos

Specifications	
Format	AVI, JPEG
Encoding	M-JPEG
Resolution	1280 x 720 - 720P
Frame rate	30fps
Still image resolution	1600 x 1200 jpg
Dimensions	148(L) x 15(Dia)mm

- Black ink refill available separately - QC-8024

	Cat.	Qty 1+	Qty 2+	Qty 4+
8GB Pen Camera	QC-8017	$69.95	$62.95	$59.50
Spare Pen Refill - Black Ink	QC-8024	$6.95	$6.25	$5.75

LCD Camera Alarm Clock

Looks just like an innocent alarm clock, but in fact it has a motion or sound-activated camera inside. Perhaps you suspect an employee of stealing or the babysitter of helping themselves to the contents of the liquor cabinet. Gather the evidence and find out for sure. The camera can record still photos or digital video to a 2GB microSD card (included) for playback on a PC. Recording is activated by the IR remote or automatically by motion or sound detection.

- Up to 1 hour recording time with internal memory of microSD card
- 12 or 24 hour display with backlit LCD
- Recharges via USB
- USB interface
- Size: 110(W) x 60(H) x 35(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8008	$79.95	$71.95	$67.95

Multifunction Clock with Hidden 720p Camera

A full function LCD clock with a hidden spy cam. Great for gathering evidence, or simply confirming a suspicion or hunch. Set it up in an area of concern and it will detect motion then commence recording 720p footage in AVI format. Using the included remote control you can also manually take pictures or trigger recording. It includes a big 2400mA rechargeable battery that will provide more than 12 hours of recording time. This can be recharged from a USB port or mains with the supplied cables. To complete the facade it is a fully functional clock, temperature gauge (in Celsius and Fahrenheit), includes a time voiceover, and is also a calendar. A 2GB microSD card is included for up to 30 minutes of video or 2000 images.

Specifications	
Image capture	1280 x 720
Video capture	AVI H.264 1280x720 at 30fps
Audio capture	16-bit 8000Hz Mono
Battery capacity	2400mA
Lens angle	140 degrees
Motion detection distance	Approx 6m
Recording time	Greater than 12 hours
Remote control distance	18m
Audio recording area	≤40m
Memory	2GB microSD card included (capable of taking a maximum of 32GB)
Dimensions	115(L) x 57(W) x 23(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8026	$99.95	$89.95	$84.95

High Definition Video Recorder Hidden in "Hollywood Director" Style Glasses

The most realistic covert spy glasses we have come across. Other units available in the market are big and bulky and just looks plain tacky. This 720p high definition digital video recorder glasses not only looks like a real set of spectacles, but it is also very stylish. The camera lens is virtually impossible to see located in the bridge of the nose of the ultra flexible frame. It has a built-in 8GB of memory, rechargeable battery and a discreet on and off switch.

- Recharge batteries by USB
- View angle 62 deg, 1 LUX
- USB 2.0 interface

Specifications	
Video format	AVI
Video Resolution	640x480 / 1280x720 @ 30fps
Photo Resolution	1600x1200

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8022	$179.00	$160.95	$151.95

1.3MP Mini Digital Spy Camera

This thumb-sized clip-mount mini digital spy recorder delivers the ultimate in discrete portable photo and video recording. From business meetings to outdoor sports activities, it has limitless applications including fixed security surveillance, portable evidence collection, babysitting monitoring, web camera and general home videos. With a built-in 2GB internal memory, it also takes a microSD and can support up to 8GB of memory. Comes with a lanyard, USB lead, pocket clip and stand so you can use it on a bicycle, car or whatever else your imagination comes up with.

- 1.3 MP camera
- High speed recording and fast response
- Low light recording
- Manual and sound activated recording functions
- Supports AVI
- Rechargeable Li-ion battery lasts for 2 hours of non-stop recording
- Size: 57(H) x 22(W) x 19(D)mm

	Cat.	Qty 1+
	QC-8003	$29.95

3MP Mini HD Digital Video Camera

Ultra portable HD video camera and recorder. Length of recording time will depend on card capacity and definition, but the internal memory will hold about 50 minutes of standard definition, 20 minutes of high definition video or over 3000 photos. The internal lithium battery recharges via USB and will provide about 4 hours of use. Pocket clip and desk stand included. Endless uses for sports, surveillance, business etc.

- 350mAh rechargeable battery - recharges by USB
- 2GB internal memory - supports up to 32GB microSD card
- AVI format
- 1280 x 720p resolution
- Weighs only 25g
- Size: 78(H) x 23(W) x 14(D)mm

	Cat.	Qty 1+
	QC-8005	$69.00

LED Flashlight with HD Video Camera

A compact HD video camera with a built-in LED flashlight. Video can be recorded at 720p and the LEDs enable night time and low-light condition recording. Its compact size and features make it a handy tool for security guards or even for home surveillance applications. The added mounting bracket is great for recording while mountain biking or the occasional night time ghost walk. It also takes photos, accepts a microSD (up to 32GB) card and can be used as a USB storage device. Includes rechargeable battery.

Specifications	
Recording format	AVI
Frame rate	30fps
Recording time	up to 4 hours
Video compression	MJPEG
Dimensions	111(L) x 32(D)mm

	Cat.	Qty 1+
	QC-8010	$49.95

TECH TIP!

Warning: These cameras should not be placed in areas where there is an expectation of privacy. Such places typically are: bathrooms, bedrooms, toilets, dressing rooms etc.. Use of these devices in such locations, can lead to criminal prosecution and severe penalties.

Stand-Alone Cameras

3.5" LCD Camera Kit

A surveillance kit that offers a stand-alone, cost-effective turn-key solution. All you need to do is connect power and install the camera where you need it. The 3.5" TFT LCD gives you real-time video monitoring and the microphone in the camera provides audio either through the speaker in the display unit or via headphone outlet. The LCD unit is able to take two AV inputs, so you can add a second camera if required. The camera has a CMOS sensor with IR illuminator and 20m power/video cable. Mains plugpack included.

- IR illuminator
- 20m cable
- Dimensions: 130(W) x 80(H) x 22(D)mm

	Cat.	Qty 1+
3.5" LCD Camera	QC-8007	$99.00

STAND ALONE CAMERAS

Mini Day/Night HD Camera with IR - 720p

NEW 2013

Video surveillance for your home or office doesn't get any easier than this. Not only is this day/night camera a compact standalone unit, it has IR LEDs (to see in complete darkness) and captures images at a resolution of 720p. You can choose to record continuous video or via motion detection. It writes to a TF card (not included), providing you with a flexible storage solution and up to 32GB capacity. That's over 9 hours of footage! Typical camera positions are just out of reach so a remote has been supplied to allow control from a distance. To watch the video, remove the TF card for playback on your PC or use the AV cable and connect the camera to a TV. It can also be used as a webcam.

Specifications	
Pixels	1.3 million
Sensor type	CMOS
Field of view	140
Min. illumination	1 Lux
Battery capacity	1020mAh
Continuous recording time	over 5 hrs
Power	200mA/3.7V (max)
Memory card type	TF card
Memory card capacity	1 - 32GB
USB interface	Mini 5Pin, USB 1.1/2.0
Storage consumption	1GB = approx. 18mins
Charge time: approx.	3hrs
Dimensions	
Without bracket	68(L) x 50(W) x 44(D)mm
With bracket	67(L) x 67(W) x 65(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8019	$99.00	$88.95	$83.95

Motion Activated Halogen Floodlight with 5MP Camera

Take your outdoor security lighting to the next level with our motion activated halogen floodlight with built-in 5MP camera. Anyone caught crossing the path of the PIR sensor will be lit up, like a performer on stage with nowhere to hide, for the camera to see and record. The camera can be set to record still photos or videos using the buttons and status LCD located at the base of the unit. An SD card slot allows you to easily replace the old card with a new one while you review and transfer its content to your computer. It's a convenient solution for those of us concerned about our outdoor perimeter security.

NEW 2013

1 YEAR WARRANTY

- Lamp type: 500W halogen
- Requires 240VAC
- Includes mounting hardware
- IP44 weather resistant rating
- Built-in PIR sensor
- 5MP camera
- Video or still photo recording
- Date/time stamp on each image
- Buttons and status LCD located at the base of the unit
- SD card not supplied
- Dimensions: 287(L) x 177(W) x 132(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	SL-2703	$149.00	$133.95	$118.95

BUY IT ON THE WEB...

Shop for all these Jaycar Electronics products online at our website - and check out our latest products and special offers!

OUTDOOR DVR MONITORING SYSTEM

Motion Activated Outdoor Camera with Flash

A weather resistant outdoor camera for a wide range of outdoor applications, including surveillance around the home, office or warehouse, or for wildlife applications. The PIR sensor with 5-zones for wide angle detection triggers the 7MP camera for colour photos and videos by day or monochrome photo and videos by night. Night vision is assisted using the bright IR flash, which illuminates objects up to 15m away. Photos and videos up to 90 seconds long are recorded to its 32MB internal memory or an SD Card up to 2GB (available separately) for more storage. Playback the vision with audio on the integrated 2.4" colour LCD screen while in the field, or by connecting to a PC. Other features include a fast 1.3sec fast trigger time, highly sensitive microphone, TV output, and security lock hole for a padlock. Power is provided by 4 x D and 3 x C batteries. We recommend Alkaline batteries for longer operation.

Supplied with USB and AV cable, PC software, mounting strap and lens hood. Visit our website for more details and video demonstration.

Note: Batteries not included

- 3MP camera* Rapid-pulsing infrared technology.
- Fast trigger time 1.3s at turbo mode.
- Separate controls for camera and sensor
- Time and Date stamp
- Built-in 2.4" TFT screen and voice memo recording to keep vocal track in the field.
- 5 zones PIR lens for wide angle detection range.
- 1-3 Quick Shots setting.
- Video resolution: VGA 640 x 480 30fps
- Power: 4 x D and 3 x C batteries not included
- Pause time: 0-90 minutes / Video length: 3-90s for day and night.
- Weight 640gm without batteries
- Dimensions: 192(L) x 120(W) x 90(H)mm

RELATED PRODUCT...
Time Lapse Cameras see page 385

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8036	$179.00	$160.95	$151.95

NIGHT VISION SCOPE

Night Vision Monocular with 3 x Magnification & IR Illumination

NEW 2013

Price Breakthrough! Up until now we have avoided selling night-vision products because we felt that not only were they expensive but they didn't perform all that well. This unit, however, changes that. Not only is this product relatively low cost, it has 3 x magnification and an infrared illuminator when light levels are extremely low. The unit has a focusing ring and attachments for a tripod mount.

Specifications	
Type	3 x 42 image intensifier tube
Max range	150-200m (2-10 Lux)
Field view	13°
Eye piece	-4 to +4 diopter
Battery	CR123A included
Battery life	approx 30 hours
Weight	300gms
Accessory	Carry bag
Lens Dia.	42mm
Dimensions	170(L) x 75(H) x 50(Dia.)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GG-2129	$249.00	$225.00	$198.95

Wireless Luggage Tracker

Track the location of a luggage bag by attaching the switched on slave unit to the bag prior to check-in. After landing at your destination simply turn on the master unit, press the search button and let the tracker find the bag. Distance LEDs gradually light up and the beeper/vibrations become rapid as you get closer to the bag while the left/right LEDs indicate the direction of your bag.

The luggage tracker doubles as an anti-theft device for a wallet, purse etc. by sounding an alarm on both units when moved further than a set distance away from each other. Just place the credit card sized slave unit into a wallet or purse, set the desired distance to either six or fifteen metres, and keep the master unit in a different spot such as in a pocket.

- Range: up to 120m (line of sight)
- Alarm with vibration
- Built-in belt clip
- Pack contains: master unit, slave unit, battery cover, batteries, luggage tag, lanyard strap and user manual
- Battery life on standby:
  Master: 50 days (8 hrs a day)
  Slave: 60 days (8 hrs a day)
- Dimensions:
  Master: 52.8(L) x 39(W) x 13.2(D)mm
  Slave: 80(L) x 50(W) x 2.8(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	XC-0360	$39.95	$35.90	$31.90

Wireless Child Tracker - 4 Channel

This device can help keep a child safe by alerting the parent when they have wandered away by sounding an alarm on the receiver and transmitter. The transmitter is small and lightweight so it can be placed in the child's pocket, bag or by using the included lanyard. The receiver can be clipped onto a belt or handbag, features a vibration motor with mute option, and can support up to four transmitters (one supplied) so the parent can protect four children at the same time. Other features include panic button, and a search function with direction and distance indication so the parent can search for their child. The tags can also be attached to pets, mobile phones, and other valuables.

- Alarm: 96dB
- Alarm trigger distance:
  Near: 10m (+/-5m) /
  Middle: 20m (+/-10m) /
  Far: 50m (+/-20m)
- Range: Up to 500m line-of-sight
- 2.4GHz digital RF technology
- Battery life at 8 hours per day / Transmitter: Up to 60 days / Receiver: Up to 30 days
- Batteries and lanyard included
- Dimensions: Receiver: 95(L) x 65(W) x 18(D)mm /
  Transmitter: 61(L) x 36(W) x 11(D)mm
- Additional Transmitter Tags available - use XC-0363

	Cat.	Qty 1+	Qty 4+	Qty 8+
Wireless Child Tracker	XC-0362	$49.95	$44.90	$39.90
Spare Transmitter Tag	XC-0363	$29.95	$26.90	$23.70

Personal GPS / GSM Tracking Device - Rechargeable

Locate and track the whereabouts of a person, personal belonging or vehicle in real time via your mobile phone. The tracker is rechargeable and compact so it can fit unobtrusively inside a pocket, handbag, luggage, vehicle, etc. To operate, simply insert a GSM Sim card (not included), charge and turn on. It then sends it's GPS coordinates via the GSM network to your mobile phone which can be viewed on GoogleMaps.

Latitude, longitude, speed, direction, date & time, and battery condition or a GoogleMaps website link can be sent at any time by sending an SMS from your mobile phone to the tracker. You can also set it to SMS details once movement is detected, when the tracker is in a pre-determined area, over a preset speed, or when the battery is getting low.
A microphone and speaker in the tracker also allows you to dial in to listen to sounds around the tracker, and one of two phones can be called from the tracker for two way communication. To top of the rich list of features is a SOS button that sends help information to up to three pre-set phone numbers. A USB cable and car charger is supplied to recharge the built-in rechargeable Li-ion battery, which will keep the tracker functioning for up to 3 days on standby.

- Listen to audio around tracker
- SIMCOM 340D GSM module (Quad band)
- 60 second auto tracking report mode option
- GPS interval power saving mode to extend battery lift
- SMS locate
- Monitor function
- Calling function
- SOS function
- Over Area alert (Geo-fence)
- Over speed alert
- Low Battery alert

Specifications	
GSM Frequency	850/900/1800/1900 MHz
GSM & GPS Antenna	Built-in
GPS Channels	32
Locate Accuracy	10-20m
GPS Start Time	1sec (Hot start), 36sec (Cold start)
Standby current	<10mA
Tracking current	50mA
Charge voltage	5V, 300mA
Battery	800mAh Li-ion BL-5C
Normal operating temperature	-20 to +55˚C
Restricted operating temperature	-35 to +70˚C
Unit dimensions	61(L) x 42(W) x 11(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-9013	$149.00	$133.95	$118.95

GPS/GSM Tracking Device for Cars, Boats and Trucks

A GSM and GPS Tracking solution to locate and track the whereabouts of your vehicle in real time via the Internet on a computer or Smartphone. The device is easy to install with only 2 - 4 wires to connect. Insert a GSM Sim card (not included) and hide the device away on a metal surface or carpet using the included hook-and-loop adhesive. It works by sending the vehicle's GPS coordinates via the GSM network to the free online tracking service, which shows the location on Google Maps. It can also SMS longitude and latitude coordinates to up to 3 mobile phones, as well as alerts when vehicle exits a pre-determined area or exceeds pre-set speed.

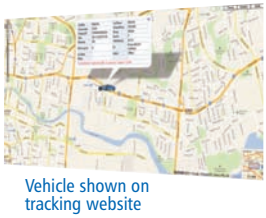
Other features include an engine kill function to remotely disable the petrol pump, and movement sensor to extend battery life. An SOS/Panic button is also supplied which can send an SMS to the pre-programmed mobile phones. The built-in rechargeable Li-ion battery will keep the device functioning for up to 4 days when power is disconnected, which could help you locate the vehicle should it have been stolen and abandoned.

There is no installation or on-going tracking charges. You only pay for the GSM sim card and service. Supplied with wiring loom, installation and operation manual.

- Real time upload current location to website
- Turn off car engine by Internet platform or SMS for Anti-theft
- Listening sound around tracker with silence by SMS or platform.
- No platform Service charge (Our free tracking platform)
- SIMCOM GSM module (Quad band)
- Upload interval is 30 seconds
- Built in shock sensor to control GPS on off to extend battery life
- Shock sensor can be used as car shock & movement alarm
- Website shows history tracking
- Platform uses free Google Maps
- Send alert when vehicle exits a restricted area
- Send alert when vehicle exceeds the restricted speed
- Power supply disconnect alarm

Specifications	
GSM Frequency	850/900/1800/1900 MHz
GSM & GPS Antenna	Built-in
GPS Channels	32
Locate Accuracy	5-10m
GPS Start Time	1sec (Hot start), 36sec (Cold start)
Standby current	1 - 2mA
Tracking current	35mA
Operating voltage	12 - 32VDC
Charge voltage	5V
Battery	800mAh Li-ion
Normal operating temperature	-20 to +55˚C
Restricted operating temperature	-35 to +70˚C
Unit dimensions	68(L) x 48(W) x 20(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-9011	$149.00	$133.95	$118.95



Vehicle shown on tracking website

Stand-Alone Alarms

Mini Wireless Tracker

NEW 2013

This dual purpose tracker can alert you if your personal belonging is in the process of being stolen or left behind, or alternatively help you find that belonging if you have misplaced it. Suitable uses include tracking phones, tablets, bags, laptop, cameras, or even push bikes. To operate, attach the tiny slave unit to the object you want to track and pair it with the master unit that you keep in your pocket. If you become separated from the slave (8 - 16m) both slave and master will beep. The beeping will stop once you are in 8m range again. To search for your lost belonging simply point the master out in front of you and press the search button. Use the distance and direction LED indicators, as well as the melody emitted from the master and slave, to locate the slave. The master and slave are have a black piano gloss finish and for added "bling" the slave includes a Swarovski Crystal Element. Master includes pocket clip and lanyard.

- Works up to 100m line-of-sight
- Compact size
- Mute option
- Standby mode for 20 - 25 day battery life
- Power saving sleep mode for 30 - 40 day battery life
- Frequency: 2.4GHz ISM
- Master unit includes 2 x LR44 batteries
- Slave unit includes 2 x LR1130 batteries
- Dimensions:
  Master: 48(L) x 39(W) x 6.8(D)mm
  Slave: 28(L) x 19(W) x 7.5(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 8+
XC-0361	$39.95	$35.90	$31.90

Bluetooth® Keyring Locator with App for iPhone®

NEW 2013

An electronic leash that will sound an alarm when your iPhone® leaves your vicinity. You can also use your iPhone® to find the lost keyring thanks to the duplex communication protocol. A handy app is available which will show on Google Maps® the last time the keyring and phone were connected. The app can control the alarm threshold distance, set the keyring to start beeping when a call is incoming, and switch the proximity alarm on/off. A brilliant little device that could save you a lot of trouble.

Specifications	
Bluetooth® protocol	4.0
Search range	20m
Batteries	Includes 1 x CR2032 button cell
Battery life	3-6 months
Dimensions	60(L) x 35(W) x 10(H)mm

Cat.	Qty 1+	Qty 4+	Qty 8+
XC-0365	$34.95	$31.45	$27.90

Protective Case with Wireless Alert Keyring to suit iPhone 4®

NEW 2013

Never leave your iPhone® behind again. Hidden within the lightweight protective case is a wireless transmitter that pairs with the small receiver that clips onto your keys or a belt loop on your pants. When the iPhone® and receiver become 2m apart the receiver will beep to alert you that you have left your iPhone® behind, or that someone may be stealing it. The protective case has a soft touch finish and features a slim retractable bracket to hold the iPhone® in a portrait or landscape position on a table. A red LED on the case and receiver indicates an alarm condition or if the batteries need to be recharged. A USB charging cable is supplied to charge the case and keyring which operate for up to 58 hours on a full charge.

- Suits iPhone 4® and iPhone 4s®
- Alarm: 95dB
- Frequency: 2.4GHz
- Rolling code encryption
- Dimensions: Case: 117(H) x 60(W) x 14(D)mm / Keyring alarm: 60(H) x 24(W) x 14(D)mm

Note: iPhone® and keys not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 8+
XC-0364	$39.95	$35.90	$31.90

STAND-ALONE ALARMS

Door Stop Alarm

NEW 2013

Alarms when pressure is imposed on the door stop plate and works as a door jam to prevent the door from opening. Ideal for added security in hotels, motels and shared accommodation.

- Loud 115dB+ siren
- Low battery indication
- No installation necessary
- 1 x 9V Alkaline battery required
- Dimensions: 160(L) x 45(W) x 40(H)mm

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5161	$9.95	$8.75	$7.75

Door Alarm with Entry Chime

NEW 2013

Sounds a loud 120dB siren when an intruder opens the door, or a pleasant entry chime when set to door entry mode. Features entry delay, exit delay and a 4-digit keypad to activate or disarm the alarm. Supplied with versatile mounting plate, which can be mounted using the included double-sided tape or mounting screws.

- Home or Away mode for instant or delayed activation
- Loud 120dB siren
- Low battery indicator
- 3 x AAA batteries required

Specifications	
Exit Delay	45 seconds
Entry Delay	30 seconds
Dimensions	85(H) x 65(W) x 25(D)mm

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5165	$14.95	$13.35	$11.70

Motion Sensor Alarm with Solar Panel

Protect your home with this simple and easy to use solar powered alarm without the hassles of running wires through your wall or ceiling cavities. After programming a 4 digit security code, it can be armed or disarmed using the built in keypad. Secures an area of up to 8 metres with it's built in PIR sensor which triggers the siren once movement is detected. This unit incorporates battery backup power for staying armed during night time. The solar panel provides sufficient power for standby use during the day.

- Low battery indicator
- Mounting hardware included

Specifications	
Alarm	130dB
Standby current	20μA
Entry/Exit Delay	5/30 Seconds
PIR Angle	120° Vertical, 60° Horizontal
Backup battery	3 x AA batteries (required)
Dimensions	116(H) x 70(W) x 33(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5216	$16.95	$14.95	$13.35

Shed Alarm

Simple and effective garage or shed alarm. Consisting of a keypad and single reed switch for a door or window and 5m of cable for easy DIY installation. It can be used as an instant alarm, with an entry delay or as a door chime to announce entry.

- Powered by a single 9V battery. (not included)
- Dimensions: 162(H) x 85(W) x 32(D)mm

KIT INCLUDES:
- Keypad
- 5m cable
- 1 x reed switch

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5214	$19.95	$17.70	$15.70

DO A FRIEND A FAVOUR

If you have a technical friend or someone who may be just interested in some of the products we stock, simply mail or email his or her address to:

**Catalogue Department
Jaycar Electronics: PO Box 7172
Silverwater, NSW 1811 or email
to catalogue@jaycar.com**

STAND-ALONE ALARMS (CONTINUED)

Motion Activated Alarm with Remote Control

NEW 2013

Avoid messy wiring and protect your belongings with ease using our battery operated, motion activated alarm. The PIR sensor provides 120 coverage, triggering a 120dB+ alarm when breached. Use the remote control to arm or disarm the alarm. Flick the switch to chime and be notified as people enter or leave your room. It is a simple but effective deterrent against intruders.

- Remote control to arm or disarm the alarm unit
- A delay feature to give you time to leave the room
- 120dB+ alarm
- 120° coverage
- Easy to install mounting bracket
- The alarm unit requires 3 x AA batteries (not included)
- The remote control includes 1 x CR2032 battery
- PIR Sensor Dimension: approx. 114(L) x 61(W) x 29.5(D)mm
- Remote Dimension: approx. 64(L) x 32(W) x 7(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5217	$24.95	$22.35	$19.70

Pressure Activated Mat Alarm with Siren and Strobe

NEW 2013

Easy to install and maintain, simply slide the pressure sensitive pad under your door mat to be notified of guests when they arrive at your front door or to surprise and deter would-be intruders.

The alarm unit is battery operated and supplied with a mounting bracket. Flick the switch to chime when you are at home, flick it to alarm when you are away.

- Super loud 120dB+ siren
- Red strobe light
- Toggle switch, off/chime/alarm
- Requires 1 x 9V Alkaline Battery (not included)
- Lead length: 4m
- Mat dimension: approx. 488(L) x 331(W)mm
- Buzzer dimension (without bracket): approx. 97(L) x 54(W) x 33(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5218	$29.95	$26.90	$23.70

Biometric Finger Scan Safe

This advanced biometric safe provides a secure storage utilising biometric finger print scan for fast and simple access in just 2 seconds! It features a foam interior with an elastic retention strap for holding your goods securely in place. Integrates a in-built flash memory which retains entered fingerprint data even during a battery failure. Ideal for storing money, passports, jewellery, personal documents and medications safely and securely. Supplied with 1m alloy security cable and even has the facility for bolting to a secure permanent fixture. Two security keys are also provided for back up.

NEW LOWER PRICE

- Weight: 1.5kg
- Low battery warning
- Mounting hardware included
- Requires 4 x AA Alkaline batteries
- Dimensions: 273(L) x 190(W) x 51(H)mm

Note: iPhone® not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
HB-5457	$129.00	$115.95	$102.95

PERSONAL & SPECIALTY ALARMS

Personal Mini Alarm with LED Torch

A personal alarm made from tough ABS construction with a 120dB siren to deter thieves and attackers. To activate simply pull the rip-cord to pull out the pin. Replace the pin to deactivate the alarm. Also includes a LED light. Great for travellers.

- 105-120dB
- Practical design
- Compact size
- Includes 3 x LR44 batteries
- Dimensions: 72(L) x 31(W) x 22(H)mm

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5183	$9.95	$8.75	$7.75

Personal Dual Alarm with LED Torch

Compact design, easy to carry and ideal for use on bags or as a key ring, this personal dual siren alarm is the perfect solution to vulnerable or threatening situations. Deter thieves and attackers with its loud dual 130dB sirens and powerful independent torch function which will strobe when the alarm is activated. Simply pull the rip-cord to pull out the pin. Replace the pin to deactivate the alarm. Also includes a LED light. Fantastic for travellers.

- Traditional ripcord or key chain activation
- New technology super loud siren
- Includes 4 x LR44 batteries
- Dimensions: 105(L) x 28(W) x 15(H)mm

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5181	$14.95	$13.35	$11.70

Water Leakage Alarm

NEW 2013

Protect your home and property from flooding. This stand alone device will alarm when it detects a water leak, making it ideal for areas prone to flooding or leaks such as laundry rooms, kitchens, bathrooms and hot water tanks. The sensor mounts easily to metal surfaces with its built-in magnet, and double-sided tape secures the alarm into position. Also features a battery test button and low battery indicator.

- Weather resistant sensor
- Loud 120dB siren
- 2 x AAA alkaline batteries required
- Dimensions: 70(Dia) x 15(H)mm

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5163	$9.95	$8.75	$7.75

INSTALLATION HELP

Installing a Home Alarm Security System

Installing home security can be a daunting task so spending time with this guide will almost certainly save you time and frustration. It clearly explains how to plan positioning of motion detectors for maximum efficiency, how to identify potential entry points for thieves, using sensors and switches plus basic cabling and installation.
If you're looking to purchase and install an alarm for the first time, this guide is essential reading.

BOOK AVAILABLE

home security

- A4 8 pages

Cat.	Qty 1+
BI-8205	$2.00

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SECURITY & SURVEILLANCE

Home Alarm Systems - Wireless

WIRELESS ALARM SYSTEMS

8 Zone Wireless Alarm Kit

Installing an alarm system can be a costly business, often a lot more than the hardware itself. Installing this wireless system takes care of that, as you can install the whole thing yourself, without needing to run wires behind walls, ceilings or under floors. It features key fob remote control, backlit LCD control panel with three colour-coded indicators of system status. Everything you need to get a basic system in your home or office is included in the kit, with spare sensors available so you can expand the system as you need to:

Features:
- 8 zones
- Backlit LCD
- 4 operation modes
- Low battery indicator
- Back-up battery
- 120dB siren
- Key fob remote with panic button
- No programming required

PACKAGE INCLUDES:
- LCD control panel
- Key fob remote
- PIR sensor
- 2 x reed switch sensors for doors or windows

MORE INFORMATION...
Package deals with dialler now available see below

DIY · 1 YEAR WARRANTY · NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 4+
8 Zone Wireless Alarm Kit	LA-5145	$149.00	$133.95	$118.95
Accessories to suit	**Cat.**	**Qty 1+**	**Qty 2+**	**Qty 4+**
Additional Wireless Reed Switch	LA-5147	$29.95	$26.90	$23.70
Additional Wireless Keyfob Remote	LA-5149	$29.95	$26.90	$23.70
Wireless Indoor 120dB Siren	LA-5142	$39.95	$35.90	$31.90
Wireless PIR Sensor	LA-5146	$39.95	$35.90	$31.90
Wireless Siren Bellbox	LA-5148	$99.00	$88.95	$78.95

Telephone Dialler Wireless Alarm for LA-5145 Alarm Kit

Add this dialler to the LA-5145 wireless home alarm system and the control panel will automatically dial a series of telephone numbers. Dialling will occur when the alarm is triggered. A built-in microphone and speaker allow you to hear what is happening and talk to anyone up to 10m away from the dialler, ideal for communicating with a person in distress or scaring off burglars. The wireless connection to the control panel makes installation simple with the only connections required being power and a telephone line. An on-board keypad and LCD screen is used for programming up to 8 telephone numbers and for setting features such as priority number selection and dialling cycles. Powered by a 9VDC mains plugpack (included) with 4xAA back up battery (not-included).

- Dimensions: 155(L) x 67(W) x 35(D)mm

*Telephone Dialler LA-5133 not available in New Zealand

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5133	$99.00	$88.95	$78.95

Wireless Pressure Mat for LA-5145 Alarm Kit

Expand the functionality of your security setup with this wireless pressure mat. Designed to work with our 8 Zone Wireless Alarm Kit LA-5145. Position it under a door mat, under carpet, or near key entry/exit points to ensure an alert signal is sent if pressure is placed on the mat.

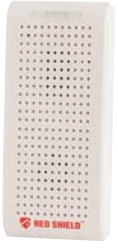
- Features an adhesive hook and loop
- 1 x 12V Alkaline Battery included
- Dimensions: 485(L) x 325(W)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5131	$29.95	$26.90	$23.70

Smart Control GSM Dialler for LA-5145 Alarm Kit

Remotely arm or disarm the 8 Zone Wireless Alarm Kit (LA-5145) alarm using a Smartphone, and in an emergency use the "call back" function to listen in. The dialler can also text or call (to deliver a pre-recorded message) up to 8 phone numbers if the alarm has been triggered.



- Requires a SIM card
- Requires 4 x AAA alkaline batteries
- Message record
- Set number of redials
- Dimensions: 175(L) x 80(W) x 27(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5164	$179.00	$160.95	$142.95

Wireless Siren Sensor/Transmitter for LA-5145 Alarm Kit

This connects to a smoke detector in your home or office and interfaces with the 8-Zone Wireless Alarm System (LA-5145), so if the smoke alarm sounds the sensor sends an alarm warning to the alarm panel. Any number of sensors can be added to the system.

- Frequency: 433MHz
- Mounting screws included
- Requires 2 x AAA batteries
- Dimensions: 68(Dia) x 23(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5132	$34.95	$31.45	$27.90

Wireless Alarm & Dialler Package Deals

Two package deals with 8 Zone Wireless Alarm Kit and your choice between a Telephone Dialler (LA-5133) or GSM Dialler (LA-5164) so you can be notified with a phone call when the alarm has been tripped. For details on the individual parts see above.

Note: LA-5164 GSM Dialler requires a SIM card.

TELEPHONE DIALLER PACKAGE INCLUDES:
- LCD control panel
- Key fob remote
- PIR sensor
- 2 x reed switch sensors for doors or windows
- Key fob remote with panic button
- Telephone Dialler LA-5133 LA-5167

GSM DIALLER PACKAGE INCLUDES:
- LCD control panel
- Key fob remote
- PIR sensor
- 2 x reed switch sensors for doors or windows
- Key fob remote with panic button
- GSM Dialler LA-5164 LA-5169

1 YEAR WARRANTY

Package Deals	Cat.	Qty 1+
NEW 8 Zone Alarm + Dialler (LA-5133)	LA-5167*	$229.00
NEW 8 Zone Alarm + GSM Dialler (LA-5164)	LA-5169	$299.00

*Telephone Dialler LA-5133 not available in New Zealand

WIRELESS ALARM SYSTEMS (CONTINUED)

8 Zone Wireless Alarm Kit

Wireless alarms are a great way to add security to your house, apartment or business without the daunting and invasive process of running cables everywhere. They're also an ideal solution for anyone in rented or temporary premises. The system "learns" what sensors are connected and the part arm function allows you to protect certain zones while others are disarmed. This is handy for keeping the rest of the house protected at night while everyone's asleep. The kit has everything you need to make your place secure.

KIT INCLUDES:
- Siren and bellbox
- Keypad
- PIR sensor
- Reed switch
- 9V plugpack

Specifications:
- 8-zones
- 3 mode arming
- Battery backup
- Learning function
- Panic alarm

Control Unit	
Zones	8 alarm zones, 1 sensor per zone
Entry/exit delay	30 seconds
Siren duration	3 minutes
Receiver frequency	433MHz
Power supply	15V 500mA,
Back-up battery life	Up to 16 hours
PIR Sensor	
Mounting height	2 - 2.5m
Detection range	12m
Frequency	433MHz
Transmission range	100m
Power supply	2 x AA batteries
Typical battery life	18 months

Reed Switch Sensor	
Frequency	433MHz
Transmission range	100m
Power supply	2 x AA batteries
Typical battery life	18 months
Remote Control Unit	
Frequency	433MHz
Transmission range	60m
Power supply	1 x CR2032
Typical battery life	18 months
External Siren	
Frequency	433MHz
Siren output	100dB
Siren duration	3 minutes
Power supply	1 x CR2032
Typical battery life	18 months

	Cat.	Qty 1+	Qty 2+	Qty 4+
8 Zone Wireless Alarm Kit	LA-5150	$169.00	$151.95	$134.95
Spares and Accessories	**Cat.**	**Qty 1+**	**Qty 2+**	**Qty 4+**
PIR Sensor	LA-5151	$29.95	$26.90	$23.70
Reed Switch	LA-5152	$24.95	$22.35	$19.70
Remote Control Key Fob	LA-5155	$19.95	$17.70	$15.70

9 Zone Intelligent GSM Wireless Alarm System

Security systems are only good if they can alert someone when they're tripped, and even the loudest siren is quiet as a mouse if nobody is nearby to hear it. Sure, you can subscribe to a monitoring service, but they can be very costly. This brilliant system incorporates a quad band GSM module to notify you by phone and SMS when the alarm is triggered.

The system is easy to set up and to operate, utilising wireless PIR detectors and reed switches, so there is virtually no wiring at all. Fully featured with up to nine zones, remote arm and disarm function and battery backup. This system allows you to cater for all your security needs in one system while giving you peace of mind. Supplied with the alarm control unit, loud 120dB siren, a wireless PIR detector and wireless reed switch and one wireless remote controls.

- Alarm trip notification via GSM network - no phone lines required
- Notifies up to three programmed numbers by phone and SMS
- Wireless PIR and reed switch units - no wiring required
- Alarm response time less than 10 seconds
- Up to 9 separate zones
- Battery backup in case of power failure
- Mains power supply included

Cat. LA-5156

ADDITIONAL PIR DETECTOR
- Requires 9VDC battery

Cat. LA-5157

ADDITIONAL WIRELESS REED SWITCHES TO SUIT LA-5156

Cat. LA-5158

KIT INCLUDES:
- Wireless alarm panel
- 1 x external siren
- 1 x wireless remote controls
- 1 x wireless PIR
- 1 x reed switch

Will require an active GSM SIM card to operate dialler function.

	Cat.	Qty 1+	Qty 2+	Qty 4+
Alarm System	LA-5156	$299.00	$269.00	$239.00
Additional PIR Detector	LA-5157	$49.95	$44.90	$39.90
Additional Wireles Reed Switches	LA-5158	$39.95	$35.90	$31.90

Specifications	
Wireless range	50m
Standby battery	9VDC (provides up to 15 hours standby backup)
Alarm panel measures	119(H) x 176(W) x 29(D)mm
Wireless reed switch measures	71(H) x 50(W) x 16(D)mm (combined excl. aerial)
Wireless PIR measures	104(H) x 60(W) x 39(D)mm (excluding aerial)
Wireless key fob measures	58(H) x 30(W) x 12(D)mm (excluding aerial)

WIRED ALARM SYSTEMS

2 Zone Alarm Kit

Simple two zone, two wire alarm for small to medium size premises. Everything you need to protect a small house or home unit is included - one passive infrared sensor for large areas and a reed switch for one entry point such as a door or window. It also has the visible deterrent of an external siren box and additional sensors can be added if required. Easy to use and install with all fixings included.

KIT INCLUDES:
1 x 2-Zone control unit
1 x PIR sensor
1 x Reed switch
1 x External siren box
1 x 25m Cable

	Cat.	Qty 1+	Qty 2+	Qty 4+
2 Zone Alarm Kit	LA-5480	$69.95	$62.95	$55.95
PIR Sensor	LA-5481	$24.95	$22.35	$19.70

Home Alarm Systems - Wired

WIRED ALARM SYSTEMS (CONTINUED)

4 Sector Security Alarm System with 2 Wire Technology

At last a user friendly 4 sector alarm system that is easy to set-up and provides exceptional levels of security. The system utilises two-wire technology to ensure simple set-up that the DIY enthusiasts will love. The control unit has a built-in keypad with status LEDs and a three modes or operation (Home, Out, Off). All sensors and sounders are line-protected so any attempt to interfere will sound the alarm.

Kit includes: control unit, two movement detector PIRs, four door/window contact, external siren strobe, 240VAC adaptor, 50m two-core flat wire and clips and screw/wall plug packs.

Set up multiple sectors which can be monitored or enabled independently (eg. upstairs/downstairs or house & garage etc.)

- All system components (sensors, sirens) are connected to the control unit via a two-core non-polarflat wire
- Low battery and tamper attempts will be indicated by the status LEDs
- Push button "Home", "Out", and "Off" mode operation or "Home" and "Out" modes are pre-programmed for user convenience
- Door chime function is available when system is not armed
- Short circuit tamper attacks to any sector sensor will trigger the alarm
- Individual sectors can be set to "Home-Bypass" or "Bypass"; for example, the upstairs detectors can be set to "Home-Bypass" at night
- Two PIR motion detectors can be connected to each PIR sensor circuit
- The system can be expanded to have four PIRs as well as many magnetic contacts

Specifications - Control Unit	
Type:	Microprocessor based control unit with new two-wire technology
Housing:	ABS
Sectors:	4 Alarm Sectors (Expandable by connecting 2 PIRs to each of Sectors 3 and 4)
Entry/Exit Delay:	15, 30, 45 seconds programmable
Siren Duration:	1, 3 ,10 minutes programmable
Siren/Strobe Outputs:	12V
Size:	160(H) x 185(W) x 35(D)mm

Specifications - PIR	
Type:	Dual Pyroelectric element with hemispherical lens and new two-wire technology
Housing:	ABS
Adjustments:	Pulse count (1, 2 or 4)
Test LED:	Selectable (on/off)
Mounting Height:	2 - 2.5m
Detection Range:	Up to 15m
Size:	105(H) x 65(W) x 45(D)mm

Specifications - External Siren Unit	
Type:	Piezo electronic external siren
Housing:	ABS
Siren Output:	110dB min. at 1m
Size:	180(H) x 113(W) x 47(D)mm

Specifications - Door/Window Contact Detector	
Type:	Magnetically - actuated switch
Housing:	ABS
Size:	67(H) x 13(W) x 12(D)mm

Spare PIRs sold separately:

2 WIRE PIR TO SUIT LA-5475

LA-5476

This 2 wire PIR is a dual-element passive infrared intrusion detector for use in electronic security systems. It is compact, attractive and easy to install. It can be mounted indoors in a corner and is ideal for commercial, office and residential installation. The unit detection is via monitoring changes in infrared energy patterns.

KIT INCLUDES

- Control Unit
- 2 x PIRs
- 4 x Reed Switches
- External Siren
- 50m two-cone flat cable
- 240V adaptor
- Mount Hardware

LA-5473

	Cat.	Qty 1+	Qty 2+	Qty 4+
4 Zone Alarm System	LA-5475	$119.00	$106.95	$94.95
2 Wire PIR	LA-5476	$29.95	$26.90	$23.70
PIR Lens - Lens Curtain	LA-5473	$6.95	$6.25	$5.50

10 Sector Intelligent Alarm System with Optional Dialler

Fully configurable and programmable, this professional alarm panel is the most advanced version of our 10 zone alarm controllers. Boasting an impressive range of features above our standard alarm systems, the LA-5368 alarm panel gives you everything required for advanced alarm installations. Standard features include support for up to four individual named keypads at a maximum range of 100m from the controller, four access levels of user codes with flexibility to program any zone as security, PA, fire or 24 hour tamper. Advanced features include more programming flexibility during installation and support for optional accessories; wireless sensor adaptor and GSM dialler.

As this panel is designed with the flexibility to suit the requirements of many different installations, it is supplied as a control panel only. Additional components, sensors and accessories are available to cater for specific applications.
Cat. LA-5368

LA-5368

Suitable accessories - sold separately:

- LED Keypad Cat. LA-5561
- LCD Keypad Cat. LA-5563
- GSM Dialler Module Cat. LA-5369
- Wireless Sensor Adaptor Cat. LA-5367
- 12V 1.3Ah Backup Battery Cat. SB-2480
- Suits standard PIR and Reed switches

COMPATABLE SENSORS & CONTROLLERS:

- Wireless PIR Sensor Cat LA-5151
- Wireless Reed Switch Cat LA-5152
- Remote Control Key Fob Cat LA-5155

GSM INTERFACE MODULE FOR LA-5368 ALARM SYSTEM

Don't leave your alarm screaming for attention when you can't hear it! This powerful unit interfaces with the LA-5368 8-sector alarm system to enable even more features. The unit allows the alarm system to receive commands and send notifications via SMS over the GSM network. It can store up to three mobile phone numbers, which are then notified if the alarm is triggered. A great feature is the remote arm/disarm function. It allows you to send an SMS (from an authorised number) to arm and/or disarm the panel remotely. No worrying about "Did I turn the alarm on?" when you head on holidays, or late night trips to the office to check it's secure. Simply send an SMS and it's done!

- Features tamper protection, and is powered by the LA-5368 alarm system.

Cat. LA-5369

LA-5369

WIRELESS SENSOR ADAPTOR FOR LA-5368

Connect this module to the LA-5368 Intelligent 10 Sector Alarm System to convert the wired zones into wireless to allow integration of remote control key fobs and wireless sensors to the alarm system. Ideal for businesses and residences with detached workshops or garages. Also works well for rooms, which are unable to be reached by cables. Unit is powered from the LA-5368 alarm panel. Sensors and key fobs sold separately.

- Dimensions: 150(H) x 100(W) x 30(D)mm

Cat. LA-5367

COMPATIBLE SENSORS & CONTROLLERS:

Wireless PIR Sensor Cat. LA-5151
Wireless Reed Switch Cat. LA-5152
Remote Control Key Fob Cat. LA-5155

	Cat.	Qty 1+	Qty 2+	Qty 4+
10 Sector Intelligent Alarm System	LA-5368	$149.00	$133.95	$118.95
Wireless Sensor Adaptor	LA-5367	$59.95	$53.95	$47.90
GSM Dialler Module	LA-5369	$299.00	$269.00	$239.00
	Cat.	Qty 1+	Qty 4+	Qty 8+
LED Keypad	LA-5561	$49.95	$44.90	$39.90
LCD Keypad	LA-5563	$69.95	$62.95	$55.95
	Cat.	Qty 1+	Qty 4+	Qty 10+
12V 1.3Ah Backup Battery	SB-2480	$19.95	$17.70	$15.70

10 Zone Alarm Kits

Fully configurable and programmable, these alarm kits give you complete control over a professional system for home or business. Each comes with a central controller and the sensors you need to get a basic system up and running, then you can add sensors and functionality as required. Up to four remote keypads can be installed at up to 100m range and each can be named for easy identification. Each user can be programmed with any of four access level codes. Any zone can be programmed for security, PA, fire or 24 hour tamper and can be fully or partially armed. All the engineering codes and memory functions are protected by a non-volatile memory in case of power failure.

- 10 programmable zones
- 4 access levels
- Walk test mode
- Events memory in keypads
- Programmable timers for entry, exit and alarm duration

Two models to choose from.

10 ZONE ALARM WITH LED CONTROLLER Cat LA-5560

Kit includes:
1 x Control panel
1 x Remote LED controller
2 x PIR sensors
1 x Reed Switch
1 x Bellbox
1 x 50m 6 core cable
1 x 12V 1.2Ah backup battery

LA-5560

10 ZONE ALARM WITH LCD CONTROLLER Cat LA-5562

Kit includes:
1 x Control panel
1 x Remote LCD controller
4 x PIR sensors
2 x Reed Switch
1 x Bellbox
1 x Internal siren
2 x 50m 6 core cable
1 x 12V 1.2Ah backup battery

LA-5562

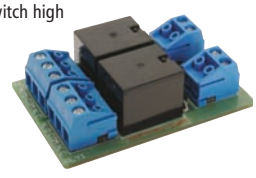
	Cat.	Qty 1+	Qty 2+	Qty 4+
LED Alarm Kit with 2 PIRs	LA-5560	$199.00	$178.95	$158.95
LCD Alarm Kit with 4 PIRs	LA-5562	$299.00	$269.00	$239.00
LED Keypad - suits LA-5560	LA-5561	$49.95	$44.90	$39.90
LCD Keypad - suits LA-5562	LA-5563	$69.95	$62.95	$55.95
	Cat.	**Qty 1+**	**Qty 4+**	**Qty 8+**
PIR - suits both LA-5560 & 62	LA-5564	$29.95	$26.90	$23.70

ALARM PANEL ACCESSORIES

Alarm Relay Module 2 x 15A

When it comes to large alarm installations, there is often a requirement to have several sirens and strobe lights. In order to do this safely, the best way is to use an isolated relay module. This enables you to supply an external power source so as not to overload the power supply on the alarm panel and switch high currents to multiple sirens and strobe lights.

- 15A Switching current
- Easy connection via wire terminals
- NO and NC contacts
- Isolated to protect the alarm panel
- Relay coil protection for spike free operation



	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5558	$19.95	$17.70	$15.70

ALARM POWER SUPPLIES

16VAC 1.25 Amp Alarm Supply

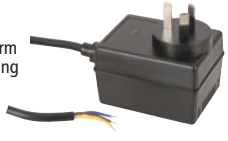
Designed for use with many house alarm panels. Supplied with three metres of cable for connection to alarm.

- Terminated with bare ends
- Dimensions: 55(W) x 90(H) x 60(D)mm

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
16	1.25	N13057	MP-3021	$23.95	$21.35	$18.95

17VAC 1.25 Amp - Earth Connected

This has the earth pin wire connected. This is used for alarm panels that have an inbuilt dialler, as Austel require earthing due to it being connected to the telephone system.



- Terminated with bare ends

ACMA Approved

Voltage(AC)	Current(A)	Approval	Cat.	Qty 1+	Qty 5+	Qty 10+
17	1.25	N13057	MP-3022	$24.95	$22.35	$19.70

SHOCK SENSORS

SHOCK SENSOR

A modern designed alarm vibration or shock sensor that has a wide dynamic range with high/low sensitivity settings. It is lightweight, fast and easy to install and can be mounted to wood, steel, glass, and concrete. Also includes latching and non latching modes and red LED indicator.

Specifications	LA-5071
Supply Voltage	9V - 16V DC
Current: Normal Mode	15mA at 12V / Alarm: 18mA at 12V
Operating Temperature	-10°C to +55°C
Relative Humidity at 30°C	0 - 90%
Pulse Count	Selectable one or two pulses
Relay Contact Resistance	150mA 24V Resistive 10 Ohms 1/10Watts
Dimensions	27(L) x 22(W) x 87(H)mm

INTELLIGENT SHOCK SENSOR

This vibration/shock sensor has an intelligent microprocessor. The sensitivity is automatically set in Learn Mode by the level of a recognised impact made to the protected area. The number of impacts i.e. pulse count required to generate an alarm is determined by the number of the recognised impacts made in Learn Mode. Fast and easy to install and can be mounted to wood, steel, glass, and concrete.

Specifications	LA-5073
Supply Voltage	9V - 16V DC
Current: Normal Mode	16.5mA / Alarm: 15.8mA
Operating Temperature	-20°C to +50°C
Relative Humidity	30°C: 0 - 90%
Pulse Count	1 - 8 Programmed in Learn Mode
Latching Modes	Any, First to Alarm, Sequential
Sensitivity Settings	Automatic from Learn Mode Impact
Indicator	Two colour LED
Dimensions	27(L) x 22(W) x 87(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
12V Pulse Count	LA-5071	$24.95	$22.35	$19.70
12V Intelligent Pulse	LA-5073	$34.95	$31.45	$27.90

Home Alarm Accessories

REED SWITCH MAGNET ASSEMBLIES

NC Reed Switch*

Ideal for burglar alarms.

Specifications	
Total length	44mm
Glass length	16mm
Contact rating	10W
Switching voltage	200VDC (max)
Switching current	0.5A (max)
Carrying current	1.0A (max)

*Normally open, but closed when near magnet (see note at bottom of page).

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SM-1002	$1.95	$1.75	$1.55

NC Reed Switch & Magnet

These are used to secure an alarm circuit on a door or window. Sold as a pair, one has a magnet inside, the other a reed switch. They have powerful magnets, with self adhesive or screw mount. Screw terminating. Size same as LA-5070. Contacts open when magnets are apart and closed when together

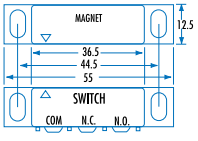
Normally CLOSED (NC) per pair.

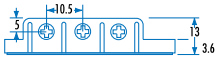
Burglar Alarm Industry Standard

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5072	$4.95	$4.45	$3.90

NO & NC Reed Switch & Magnet

You have both types of contacts on the one unit.
Normally Open (NO) and
Normally Closed (NC) per pair.
Temperature: -40˚C to 80˚C





	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5070	$5.95	$5.25	$4.75

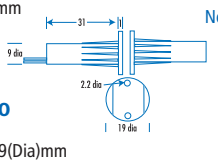
Flush Mount Reed Switch & Magnet Sets

Just drill a recess in your door or window and the magnet flush mounts to be "invisible". The reed switch segment is similarly mounted into the door frame or window frame & wired into your system. Available in two versions to suit timber or metal frames with both versions normally closed contact.

TAPERED VERSION TO SUIT TIMBER FRAMES
- Dimensions: 31(L) x 9(Dia)mm
- Surface Diameter: 19mm

Cat. LA-5075

Normally CLOSED (NC) per pair.



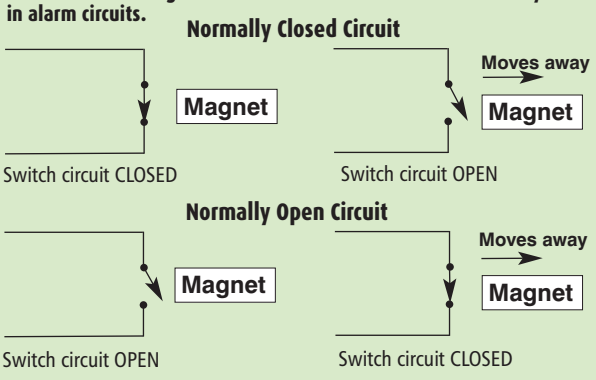
TOOTHED VERSION TO SUIT METAL FRAMES
- Dimensions: 19(L) x 19(Dia)mm
- Surface Diameter: 24mm

Cat. LA-5076

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5075	$4.95	$4.45	$3.90
	LA-5076	$5.95	$5.25	$4.75

TECH TIP

NORMALLY CLOSED. This is when the switch contacts are touching in the presence of a switching magnet. The contacts OPEN when the magnet is removed. This is the most common system in alarm circuits.



NC Miniature Reed Switch & Magnet

Absolutely tiny, these encapsulated reed/magnet switches with leads are ideal for home and car security. Their size should make them extremely easy to conceal so that potential thieves are less likely to disable them. Made from moulded plastic.

- White in colour. Supplied with 300mm lead
- Dimensions: 33(L) x 8(W) x 8.5(D)mm
- Width including mounting tab: 15mm
- Hole spacing: 18mm
- Wire lead length: 300mm

Normally CLOSED (NC) per pair.

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5074	$6.95	$6.25	$5.50

PIR DETECTORS

Dual and Quad Element PIR Detectors

Reliable and effective dual and quad element PIR detectors for home or office security applications. Both units are compact, attractive and easy to install with the features to match. Each has a built-in automatic temperature compensation to help eliminate false triggers in certain environments. 110 degree convex honey comb hemispherical infrared lenses are used and each unit has an extremely low current draw at 8mA. Both feature a swivel bracket for quick position adjustment. This quad unit offers higher levels of detection than the dual element model.

- Detection type: Dual element low noise pyroelectric sensor
- LED indicator: Walk test enabled by internal link
- Tamper switch

Specifications	
Operating voltage	9-15VDC
Current draw	8mA nominal at 12VDC
Range	12m max
Field of view	110 degrees max
Mounting height	1.5m-2.4m
Alarm output	NC, when cover on, 28VDC 0.1A
Warm up period	90 seconds
Pulse count	1, 2 and 4 pulses selectable
Dimensions	104(H) x 66(W) x 47(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
Dual	LA-5044	$24.95	$22.35	$19.70
Quad	LA-5046	$29.95	$26.90	$23.70

Recessed 240V 360˚ PIR Presence Detector

A Passive infra-red presence sensor switch for lighting energy saving applications. This 360 degree PIR has a 5 metre coverage which is recessed ceiling mounted and has a 75mm diameter. It has adjustable time delay and light level control function. For indoor use only.

Specifications	
Output Load	Max 1000W 5A Resistive/500W Inductive
On time duration	min 10 secs to max 16 mins
Dimensions	62mm cutout, 75mm overall, 60mm depth
Voltage	240VAC 50Hz

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5049	$29.95	$26.90	$23.70

ALARM STROBES & SIRENS

Blue 12V Siren/Strobe

A combined siren and LED strobe for alarm systems. It has 120dB output with low power consumption.

- Output: 120dB
- Operating voltage: 12VDC
- Dimensions: 120(L) x 72(W) x 42(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5306	$14.95	$13.35	$11.70

12V Outdoor Siren / Bellbox

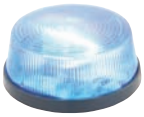
Bellbox and siren for outdoor use. Important visual deterrent factor in any security system. 12V operation, so will happily work with a range of alarm systems. Anti-tamper switch included.

Specifications	
Output	112dB output @ 1m
Operating voltage	12VDC
Current consumption	300mA
Dimensions	202(W) x 112(H) x 65(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5301	$19.95	$17.70	$15.70

ALARM STROBES & SIRENS (CONTINUED)

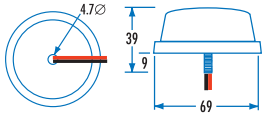
Mini Size - Xenon



These mini strobes are weatherproof and rustproof. They utilise a long-life xenon tube and are very bright for their size. Surface mount, single cable entry hole.

- Voltage: 12VDC
- Current drain: 180mA
- Strobe rate: 90 flashes / minute
- Size: 69(dia) x 30(H)mm

Three colours available:
LA-5302 Blue
LA-5303 Red
LA-5304 Amber



	Cat.	Qty 1+	Qty 4+	Qty 8+
Blue	LA-5302	$24.95	$22.35	$19.70
Red	LA-5303	$24.95	$22.35	$19.70
Amber	LA-5304	$24.95	$22.35	$19.70

Mini Size - LED

LED strobes for security, alarm or emergency use. Low current consumption units are fully sealed and waterproof; suitable for outdoor alarm applications. Mounts with 2 x 5mm bolts.

- 12VDC operation.
- Measures: 70(Dia) x 45(H)mm

1 YEAR WARRANTY

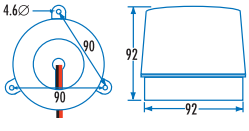
	Cat.	Qty 1+	Qty 4+	Qty 8+
Blue	LA-5326	$19.95	$17.70	$15.70
Red	LA-5327	$19.95	$17.70	$15.70
Amber	LA-5328	$19.95	$17.70	$15.70

Large Size (Xenon)

Bigger and brighter, as well as weatherproof and rustproof. Voltage is 6-12VDC, current drain is 220mA, flashrate is 75 per minute at 12V.

- Flash rate slower at lower voltage.
- Lens colour blue.
- 100(Dia) x 88(H) mm.

NEW LOWER PRICE



Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5300	$29.95	$26.90	$23.70

TECH TIP!

AIRCRAFT OWNERS/OPERATORS

If you operate mobile equipment on the aircraft side of an airport you must now fit an amber flashing light on such equipment. Save yourself a fine & wire an amber unit to your vehicle. All units are 12V powered. Simply wire across ignition circuit so that strobe automatically comes on when vehicle is started.

Small 'Tweetie Pie' Siren

This incredible little piezo screamer emits a 116dB wail. It sounds like a very loud canary. The sound at close range is almost unbearable! Ideal for any compact high noise alarm application

- Current 200mA max
- Measures 57(L) x 33(H) mm - less bracket
- Operating voltage: 12VDC

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5255	$19.95	$17.70	$15.70

Large 'Tweetie Pie' Siren

This piezo screamer is the original Tweetie Pie's big brother. It is ideal if space is not too much of a problem, but it's still far smaller than all our other sirens. This screamer is louder than the smaller Tweetie Pie, it's 119dB and draws only 250mA.

NEW LOWER PRICE

- Colour is black.
- Measures 90(L) x 62(W) x 70(H)mm incl mounting bracket.
- Operating voltage: 12VDC.

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5254	$24.95	$22.35	$19.70

Piezo Siren

Black in colour, supplied with mounting bracket and connecting cable.

NEW LOWER PRICE

- Height 100mm (from mounting bracket to top)
- Length 80mm, 80mm diameter.
- Operating voltage: 12VDC
- Resonant Freq: 3kHz
- Sound Output: 120dB
- Current Drain: 300mA.

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5258	$24.95	$22.35	$19.70

Plastic Siren Cover

RUSTPROOF & UV STABILISED - Remains attractive in any environment. Will accept 5" siren, has 3 holes drilled for mounting strobe, and bracket for mounting a tamper switch, which is supplied.

5 YEAR WARRANTY

- 5 year warranty for UV protection
- Measures approx 175 x 155mm at back 125 x 125mm at front
- Depth 145mm
- White in colour
- Includes tamper switch

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5112	$19.95	$17.70	$15.70

Make Your Home Look Alarmed

Most home burglar alarms have a siren and flashing strobe mounted in a box on the verandah or under the front eaves. Burglars casing the street easily know who has an alarm, and who doesn't.

Now you can make your home look alarmed with our very competitively priced kit.

Kit includes:
- Siren cover
- Strobe
- 3 alarm stickers

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LA-5130	$49.95	$44.90	$39.90

Indoor Piezo Siren

This unit is very popular for indoor use with house alarms. It is dustproof & waterproof.

NEW LOWER PRICE

- Voltage range: 7.5 to 15V
- Current (approx): 200mA @12V
- Output: 100-105dB @ 1m
- Measures: 85(Base) x 42(H)mm.

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5256	$9.95	$8.75	$7.75

Flush Mount Piezo Siren

Modern day replacement for the traditional top hat screamer. Mounts flush in the ceiling making it less noticeable.

CRAZY CLEARANCE

- White in colour
- Voltage: 6-15V DC
- Current: 150mA
- Output: 108dB @ 1m
- D47 x H52mm
- Mounts in hole dia of: 47 - 62mm

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5257	$5.95	$5.25	$4.75

5" Horn Speaker

Fully weatherproof. Unique voice coil construction ensures high dependability on full drive.

- Suitable for PA, intercom, security systems, etc.
- 10 watt - 8 ohm.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3180	$16.95	$14.95	$13.35

5" x 8" Horn Speaker

This attractive unit in high impact white plastic features stainless steel hinge bolts. The special bracket enables maximum flexibility in mounting. Ideal for any outdoor application including marine.

- Rated at 30 watts power handling
- 8 ohm

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3190	$29.95	$26.90	$23.70

Piezo 4 Tone Siren with Controller

A very loud 125dB siren, it has four different tones - police, ambulance, fire engine or truck air horn. Connects to a 12VDC power source and select a tone with the controller. Sturdy moulded plastic construction with metal mounting bracket.

1 YEAR WARRANTY

- 125dB
- 12VDC
- Size: 150(L) x 130(Dia)mm

Cat.	Qty 1+	Qty 4+	Qty 8+
LA-5259	$29.95	$26.90	$23.70

Access Control

ALARM ACCESSORIES

Large Alarm Sticker

For trucks, caravans, houses, offices and factories. Where a larger and more prominent deterrent sticker is required.

- Sticks to outside of window.
- Measures: 120 x 80mm

RELATED PRODUCT...
See page 349 for Video Surveillance deterent stickers

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5102	$2.95	$2.60	$2.30

WINDOW ALARMS

Solar Powered Mini Window Alarms

Cost-effective and simple security measure. Use one or more as a stand-alone option or as an addition to an existing electronic security setup. Simply peel the clear backing from the self-adhesive mount and position on the inside of a window - no tools required. The solar cell keeps the built-in Ni-MH battery charged and if triggered, the very loud alarm sounds.

Two types are available. Suitable for windows, French doors, sliding glass doors and pane glass doors.

- Warning sticker included
- No wiring
- Never needs batteries
- Self-adhesive
- Size: 70(W) x 82(H) x 8(D)mm

3 YEAR WARRANTY

TECH TIP!
FITS ON INSIDE OF WINDOWS

MINI GLASS BREAKAGE/ VIBRATION Cat LA-5003
MINI MAGNETIC ENTRY Cat LA-5005

	Cat.	Qty 1+	Qty 4+	Qty 8+
Glass Break / Vibration Alarm	LA-5003	$19.95	$17.70	$15.70
Magnetic Entry Alarm	LA-5005	$19.95	$17.70	$15.70

ACCESS KEYPAD

Self-Contained Security Keypad

This self-contained and economical keypad is designed for door-strike and security control applications. It has a single-relay output as well as a separate open collector transistor output intended for duress both with terminal blocks for easy connection. It has almost 100 million possible combinations for the user code(s) and the master code (4 - 8 digit code length), and a duress code for emergencies. The keypad employs an EEPROM memory so that the codes you have programmed will not be lost if the power fails. Presented in a tamperproof stainless- steel wall-plate and plastic backing box. It also features audible key beep and LED status indicators.

Specifications	
Voltage requirements	12VDC
Relay output capacity	3A, 24VDC
Dimensions	117(W) x 74(D) x 48(H)mm
Will interface with most alarms	

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5355	$39.95	$35.90	$31.90

DOOR EXIT SWITCH

Non-Contact Infrared Door Exit Switch

This infrared sensor can replace the old push button switch on automatic exit doors so that they will open with just a wave of your hand. The sensor will trigger an internal relay when your open hand comes within 100mm of the panel. No actual contact is required so there can be no transfer of contagions from one person to the next. The sensor is mounted on a stainless steel plate and has indicator LEDs built in to signal that the switch has been activated.

- 12VDC supply voltage
- 3A @ 30VDC contact rating
- 30mm sensor diameter
- 70 x 115mm plate dimensions

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5187	$49.95	$44.90	$39.90

RADIO FREQUENCY ID DEVICES (RFID)

Digital Keypad with RFID Access Control

A single door multifunction standalone access controller or a Wiegand output keypad/card reader suitable for an area requiring stricter access control such as a laboratory, warehouse, bank, or prison. The unit is suitable for mounting indoor or outdoor in harsh environments. It's housed in a sturdy IP65 vandal proof zinc alloy electroplated case that can mounted to a wall with minimal drilling. Up to 2,000 users are supported in either a card, a 4-8 digit PIN, or a card + PIN option and the inbuilt card reader supports EM, 125kHz frequency cards. Red/Yellow/Green LEDs will indicate working status of the device. Protective features include anti-magnetic MOS output, output current lock, and short circuit protection.
Full installation instructions and wiring diagrams featured in manual.

- Waterproof
- 2000 users
- Backlit keypad
- LED indicator (Green/Yellow/Red)
- Wiegand 26 input for the connection of an external reader
- Adjustable door output time, alarm time and door open time
- Built in light dependent resistor for anti-tampering
- Built in buzzer

Specifications	
Voltage	12VDC
Keypad	12 keys, 3 x 4 digits
Card Type	EM 125kHz
Card Reading	Distance: 3-6cm
Active current	<60mA
Operating Temperature	-15-60 degrees Celsius
Adjustable Door Relay time	99 seconds
Adjustable Alarm Time	0-3 minutes
Weigand Interface	Wiegand 26 bit
Wiring Connection	Electric Lock, Exit Button, DORL, External Alarm
Dimensions	128(H) x 82(W) x 28(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5353	$99.00	$88.95	$78.95

EM400X RFID TAGS

RFID Key Fob

- Dimensions: 31(W) x 40(L) x 5(H)mm

Cat. ZZ-8950

Clear 21mm Diameter RFID Tag

- Dimensions: 21mm diameter, less than 1mm thick

Cat. ZZ-8954

RFID Wafer Card

It is around the same size as a standard credit card.
Cat. ZZ-8952

RFID Tag - Lanyard type

Hangs on a lanyard or belt clip. Similar size to a credit card. Cat. ZZ-8953

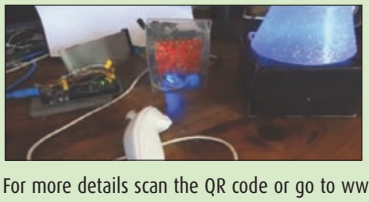
NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 8+
Keyfob	ZZ-8950	$4.95	$4.45	$3.90
Clear Round	ZZ-8954	$4.95	$4.45	$3.90
Wafer Card	ZZ-8952	$4.95	$4.45	$3.90
Lanyard Card	ZZ-8953	$4.95	$4.45	$3.90

Wireless RGB Lamp

Makers Name: Joe Medancic
Location: Victoria

Controls the colour and brightness of a lamp wirelessly via a sender unit to a "nunchuck" controller. Watch the Youtube video!



For more details scan the QR code or go to www.jaycar.com.au/makers

DOOR STRIKES

Narrow Electric Door Strikes

Upgrade your conventional door locks to keyless entry electronic access. These new electric door strikes are suitable for narrower doors, and are now available in either fail-secure or fail-safe models. A fail secure door strike will keep a door locked shut in the event of a power failure. Conversely, fail safe door strikes keep doors unlocked in the event of a power failure. So choosing between the two depends on whether your priority is internal security or exit safety in case of emergency. These electric door strikes complement our range of RFID controls for card or fingerprint access, or they can also be paired with one of our intercoms or video doorphones to create a convenient remote door access system.

- Suitable for wood, aluminium and hollow metal door jambs
- Plate size: 160(L) x 25(W) x 28(H)mm

FAIL-SECURE TYPE
Cat. LA-5077
- Power: 12VDC, 450mA

FAIL-SAFE TYPE
Cat. LA-5079
- Power: 12VDC, 200mA

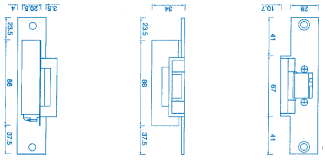
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
Fail Secure Type	LA-5077	$29.95	$26.90	$23.70
Fail Safe Type	LA-5079	$29.95	$26.90	$23.70

Standard Door Strike

Unlock your door with the push of a button - from the other side of the house or office! Designed for use with cylindrical lock- sets (commonly used on wooden and aluminium doors), it converts a conventional lock- set to an electronic access- controlled locking system. Benefits include higher security, and user convenience without needing to use a key.

- Size: 150(L) x 39.5 (W) x 28(H) mm
- Zinc alloy face plate



FAIL-SECURE TYPE
- 12VDC 450mA (on striking)

Cat LA-5078

FAIL-SAFE TYPE
- 12VDC 200mA (in locked state)

Cat LA-5081

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
Fail Secure Type	LA-5078	$49.95	$44.90	$39.90
Fail Safe Type	LA-5081	$39.95	$35.90	$31.90

REMOTE CONTROL SWITCHES

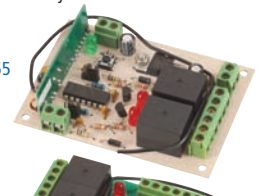
Multi Channel Remote Control Relay Boards

NEW 2013

Add remote control functions to a new project or existing installation with these handy remote control relay boards. Available with 2 or 4 channels, each output relay is controlled by a separate button on the key fob controller. Each channel can be set to momentary or latching mode allowing you to customise the setup to suit your application. Operating on the robust 433MHz band the key fob remotes work over distances up to 40m and feature rolling code transmitting for added security.

- Selectable momentary or latching mode for each channel
- Transmission frequency: 433MHz
- Transmission range: 40m max
- Operating Voltage: 12VDC
- Relay contact rating: 28VDC 10A max / 250VAC 5A max

LR-8855



2 CHANNEL REMOTE CONTROL RELAY BOARD
- Current draw: 50mA
- Board dimensions: 85(L) x 61(W) x 20(H)mm
- Remote dimensions: 51(L) x 34(W) x 13(D)mm

Cat. LR-8855

LR-8857

SPARE 2 CHANNEL KEY FOB CONTROLLER
Cat. LR-8856

4 CHANNEL REMOTE CONTROL RELAY BOARD
- Current draw: 80mA
- Board dimensions: 90(L) x 73(W) x 20(H)mm
- Remote dimensions: 63(L) x 40(W) x 13(D)mm

Cat. LR-8857

LR-8856

LR-8858

SPARE 4 CHANNEL KEY FOB CONTROLLER
Cat. LR-8858

	Cat.	Qty 1+	Qty 2+	Qty 4+
2 Channel RC Relay Board	LR-8855	$34.95	$31.45	$27.90
2 Channel Keyfob	LR-8856	$14.95	$13.35	$11.70
4 Channel RC Relay Board	LR-8857	$49.95	$44.90	$39.90
4 Channel Keyfob	LR-8858	$19.95	$17.70	$15.70

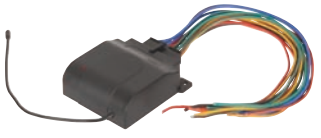
4 Channel Remote Control Relay with 2 Key Fobs

Control up to 4 different devices with a single controller and key fob remote. The receiver unit has 4 channels, each of which can be independently configured to momentary or latching mode via DIP switch. Countless access control applications - doors, alarms, entry points, arming or disarming security systems all in one unit. Includes 2 key fobs

Specifications	
Power input	10 - 15VDC
Current draw	350mA max
Standby current	<10mA
Transmission distance	30m typical (300m+ max line of sight)
Transmission frequency	433.92MHz
Transmitter features	SAW locked, rolling-code, water-resistant.
Learning capacity	250 remotes per module.
Outputs	4 x NO/NC relay contacts individually selectable as momentary or latched.
Relay contacts	5A max at 14VDC
Receiver size	90(L) x 60(W) x 35(H)mm

Hardwired Transmitter LR-8819

Spare remotes LR-8829 and LR-8819 sold separately



1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
4 Channel Remote	LR-8824	$99.00	$88.95	$78.95
Hardwired Transmitter	LR-8819	$39.95	$35.90	$31.90
Spare Remote	LR-8829	$24.95	$22.35	$19.70

One Channel Hand Controller/Transmitter

For over 15 years now, one brand of remote control has dominated the Australian & New Zealand markets for remote controls for garage doors, motorised gates, lighting, alarms etc. This unit, called the FMT-301, is a 27MHz crystal controlled NBFM (Narrow band frequency modulated) device. It is coded with a 12-way DIP switch. There are over a million in service in Australasia. They are very reliable but they do wear out, drown, go walkabout or simply get lost.We now stock the most popular single channel unit. This will save ordering one through the garage door people who charge a fortune for replacements. This is the latest version of the most common operating transmitter in use in Australia/New Zealand today. It operates (always has) on 27.145MHz & requires a 216-type 9V cell. An alkaline battery is recommended but is not included. The controller is custom coded via a DIP-switch which is accessible from the battery cover.

MORE INFORMATION...
Suits garage doors, motorised gates etc.

- Weight: 72g excluding battery
- Dimensions: 96(H) x 55(W) x 20(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LR-8827	$49.95	$44.90	$39.90

Single Channel Keyfob Remote

Multi-purpose remote control keyfob for garage doors, lights automatic gates etc. It operates in the 27MHz band on an FM signal. The built-in microcontroller uses the latest technology allowing for easy setup and installation while providing maximum security and reliability.

- Battery status LED
- Up to 200m range

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LR-8847	$49.95	$44.90	$39.90

Door Entry Beams & Announcers

DOOR BEAMS

Indoor Commercial Grade Doorway Beam

A compact entry warning system is designed for use in shops, restaurants, doctors and dentist surgeries etc. to alert you to the entry of customers and visitors. The system consists of a send/receive unit which transmits an IR beam across the doorway onto a prismatic reflector mounted on the opposite side. The beam is reflected back to the receiver to complete the circuit. When a person walks through the beam, the circuit is interrupted and this causes the alarm to sound an audible warning. The warning buzzer can be mounted in any suitable location.

- Mains plugpack and mounting hardware included.
- Effective range 2 - 6 metres
- Power: 9VDC
- Adjustable alarm time and volume
- Transmitter/Receiver size 70(H) x 60(W) x 30(D)mm
- Reflector size: 65 x 53mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5193	$79.00	$70.95	$62.95

Counter to suit Doorway Beam LA-5193

Attach to our LA-5193 Door Beam units to easily measure the door entry count in your shop, factory or office. The 20m lead carries both the signal and power, allowing you to mount the counter in a convenient location away from the door entry. This product is a must have for the serious retailer to easily measure the store traffic to sales conversions in their store.

- Counts up to 9999
- Includes '+','-' and 'Reset' buttons
- Measures: 60(W) x 70(H) x 23mm(D)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5197	$34.95	$31.45	$27.90

Door Extension Buzzer to suit LA-5193

This neat and compact buzzer can be mounted anywhere and is recommended as an addition to our Door Security Beam with Reflector (LA-5193) as an extension alarm. The volume of the buzzer is adjustable and the sound output can be selected by a slide switch to Alarm, Off or Chime. The sounding time can also be adjusted from 3 to 30 seconds. Supplied with mounting hardware and a 10m lead and an adjustment screwdriver.

Specifications	
Input voltage	9 - 15VDC
Consumption current	25mA Max
Ambient Temp	-20°C - 50°C (-4°F - 122°F)
Response time of buzzer	Chime: 1sec. Alarm: 30sec
Volume of Speaker	0 - Max (adjustable)
Alarm time	30 sec Max (adjustable)
Speaker output	Chime/Off/Alarm (selected by slide switch)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5188	$34.95	$31.45	$27.90

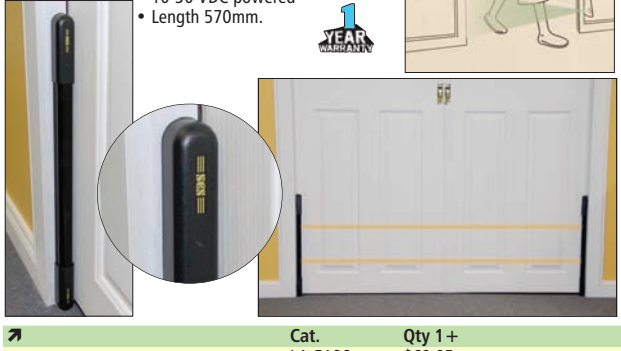
Dual Beam Infrared Barrier

Protect your doors or windows with this dual beam infrared detector. It's housed in a strong aluminium case and is suitable for outdoor use in protected environments. The detector will sound an internal buzzer and energise a relay when the beam is broken or tampering is detected.

- Mounting hardware included
- Indoor sensing range 16m, 8m outdoors
- 10-30 VDC powered
- Length 570mm.

NEW LOWER PRICE

1 YEAR WARRANTY



	Cat.	Qty 1+
	LA-5186	$69.95

Commercial Grade Doorway Beam

This doorway beam is perfect for use across gateways or garage doors; basically anywhere you need a longer range than our LA-5193. Importantly, this unit has been designed to be used in genuine commercial environments such as warehouses and parking lots where a more robust unit is required.

- The units are housed in IP66 rated enclosures allowing use in damp or dusty environments. Cable glands are also included.
- Alarm output is via a relay with normally closed and normally open options.
- Built in protection against noise, voltage surges, and vibration.
- Alarm LED (Receiver): Red LED when beam is not aligned or is broken
- Sensing Angle Adjustment: Horizontal and Vertical +/- 5°.
- Tamper switch

Specifications	
Max range	30m
Voltage	10 to 24V DC
Current Consumption	TX: 33.5mA Rx 27.5mA (max)
Detection Method	Through beam
Contact capacity	NO / NC 1A @ 120VAC

The LA-5196 is supplied only with the transmitter and Receiver units and two cable glands. You will need a power supply (eg MP-3147) but please note that a long power cable run may require a 24VDC supply to overcome voltage drops on the DC Cable. Also, you will need a buzzer or siren if you want an audible alarm (eg AB-3462), and two core flex, such as WB-1702, for connecting the relay output.

NEW LOWER PRICE

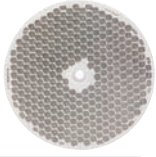
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5196	$49.95	$44.90	$39.90

Weatherproof Commercial Grade Infrared Beam

NEW 2013

A heavy duty version of the common beam sensor used in doorway announcers, this commercial grade infrared beam is ideal for detecting when a person or object crosses a boundary or entrance way. Simply install the sensor module aligned with the reflector and the relay output will be triggered by any object which breaks the beam. The sensor module projects a modulated beam which resists interference from sunlight and can be used over a range up to 15m. Suitable for connection to existing lighting or security systems, and also compatible with the extension buzzer and counter add-on units for our standard doorway beam. The polycarbonate casing is weatherproof with an anti-fog sensor window making it suitable for use outdoors and in dusty or damp environments. LED indicators are included to assist with installation and provide a visual indication of the beam status.



- Adjustable vertical beam angle
- Narrow beam angle
- NC tamper switch output
- 12VDC plugpack included
- Terminal block and cable gland included

Specifications	
Input voltage	12 to 250V AC or DC
Sensing range	0.25 to 15m
Enclosure rating	IP66
Relay output	NO / NC contact
Output contact rating	30VDC 1A
Sensor module dimensions	122(H) x 62(D) x 61(W)mm
Reflector dimensions	82(Dia) x 8(H)mm

LA-5179

Optional Accessories:
Please note these require hard-wiring to achieve compatibility, see website PDF.
- LA-5188 Door Beam Extension Buzzer*
- LA-5197 Door Beam Counter Module*

*Note: Accessories need to be hard wired

LA-5188

LA-5197

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
Infrared Beam	LA-5179	$99.00	$88.95	$78.95
Extension Buzzer	LA-5188	$34.95	$31.45	$27.90
Counter Module	LA-5197	$34.95	$31.45	$27.90

DOOR & DRIVEWAY BEAM

Solar Powered Wireless IR Annunciator Kit

With a wireless transmission range of up to 100m, this annunciator kit is a perfect, reliable solution for monitoring traffic in and out of driveways to shops, large commercial and rural properties. Attach the wireless IR detector at the entrance and be alerted of customers or guests as they enter and leave your premise. Installation is easy, the detector runs on 4 x AAA rechargeable batteries and is topped by the solar panel charger included. The wireless receiver can be wall mounted, placed over the counter, desk or wall mounted with no messy wiring connections in between.

Wireless IR detector	
Includes	4 x AAA rechargeable batteries
Transmission Range	Up to 100m
Transmission frequency	433.92MHz
IR detection range	2 - 6m
Dimensions	71(L) x 64(W) x 43(D) mm
Annunciator	
Type	Microprocessor based control unit
Transmission frequency	433.92MHz
Requires	4 x 1.5V D size alkaline battery
Operating temperature	0˚C - 40˚C
Dimensions	143(L) x 110(W) x 50(D) mm
Solar Panel (without bracket)	
Dimensions	173(L) x 123(W) x 14(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5176	$99.00	$88.95	$78.95

ENTRY ANNOUNCERS

Solar Wireless PIR Annouancers

Monitor areas wirelessly with this Solar Wireless PIR motion detector. The PIR sensor reliably detects movement and transmits to the indoor annouancer. It comes with a solar panel which mounts on the roof and connects to the sensor to ensure very long battery life. Great for installation in areas where it is not convenient to constantly replace batteries. Use as a driveway entry alert, garage or shed alarm or door entry and backyard annouancer. Easy to install and mounting hardware is included.

- Detection range 4-5m
- Control panel requires 4 x D batteries
- PIR detector requires 2 x AAA batteries
- Dimensions:
- Unit: 122(W) x 143(H) x 52(D)mm
- Wireless PIR: 75(W) x 120H) x 60(D)mm

LA-5172

NEW LOWER PRICE

LA-5174 LA-5173

	Cat.	Qty 1+	Qty 2+	Qty 4+
Battery Powered	LA-5172	$49.95	$44.90	$39.90
Battery & Solar Powered	LA-5174	$69.95	$62.95	$55.95
Doorbell to suit LA-5172/74	LA-5173	$14.95	$13.35	$11.70

DOORBELLS

Wireless Doorbell

Install a doorbell without the mess of wires and drilling. This simple home wireless doorbell has 32 melodies to choose from and is completely wireless so all you need to do is secure the transmitter next to your door and place the receiver unit where it can be heard. It has an operating range of 50 metres in open air and is suitable for homes and office buildings.

- Easy to install at an affordable price.
- Requires 3 x AAA

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5018	$14.95	$13.35	$11.70

Wireless Doorbell - 240VAC Plug-In

Simple plug and play in design. This compact sized doorbell receiver plugs into a power point and is not much bigger than a slim line power supply, so it fits on your powerboard or double wall socket without taking up too much space. Once plugged in, the battery powered wireless doorbell button can transmit up to 100 metres chiming out one of the 32 selectable melodies.

- Suitable for rental properties, apartments and small offices.

TECH TIP!
Plugs directly into power point

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5029	$19.95	$17.70	$15.70

Wireless MP3 Doorbell

A wireless doorbell that plays your very own favourite MP3 song or message, or one of 16 pre-loaded polyphonic sounds. To load your MP3 file simply connect the main receiver unit to your PC and use the supplied software to trim, save and upload the file. The sleek elegant design won't compromise your room's decor either. Supplied with USB cables, CD with MP3 trim software and user manuals.

- Readable tune format: MP3 file
- Built-in sound: 24 polyphonic sounds
- Operating range: up to 100m
- 1 x 12V A23 battery for transmitter (included)
- 3 x 1.5V AA batteries for receiver (not included)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5024	$44.95	$40.45	$35.90

Wireless Doorbell with V8, F1, Bike or Ding-Dong Sound

If you love cars you'll love this fantastic wireless doorbell. Choose between a thumping V8, a Formula-1 racer, or motor bike and get your heart pumping every time the doorbell rings. If that gets too exciting you can switch to a sedate ding-dong while you recover. There have been other doorbells like this, but they don't sound anywhere near as good as this one.

- 30m transmission range
- Mains adaptor included
- Mounting hardware included
- Requires 3 x AA batteries

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5000	$29.95	$26.90	$23.70

Wireless Doorbell Alarm with Clock & Temperature

A multi-function wireless doorbell suitable for the elderly or the hearing impaired. Utilises an LED light alerting system; it incorporates a flashing blue led to indicate doorbell activation and red led for the remote alarm trigger. It is also accompanied with 36 user selectable melodies for the doorbell function and 9 alarm tone settings. The portable LCD chimer is powered by 3 x AAA batteries and has a range of up to 80 metres. Time, date and indoor temperature are shown on the LCD. Also supports other functions such as a count down timer or an alarm clock.

- Battery life up to 12 months (based on 20 operations per day)
- Transmission range 80 metres line of sight

Selectable sounds up to:
- 36 door bell melodies
- 9 emergency tones
- 8 alarm clock musical sounds

Batteries:
- Includes 1 x CR2032 battery for each transmitter
- Includes 2 x AG13 batteries for LCD calendar back up
- Requires 3 x AAA batteries for LCD chimer

Dimensions	
Doorbell transmitter	45(W) x 16(H) x 90(D)mm
Alarm Transmitter	45(W) x 16(H) x 85(D)mm
LCD Chimer (receiver)	115(W) x 25(H) x 175(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5022	$29.95	$26.90	$23.70

Security Lighting

DOORBELLS (CONTINUED)

High Sound Level Wireless Doorbell with Strobe for the Hearing Impaired

When this doorbell rings, the sound is accompanied by several bright flashes from the receiver's built in strobe light, which makes it much easier for a hearing impaired person to know that someone is at the door. The sounder can be taken from room to room, or even used outdoors and will work up to 30 metres from the transmitter button. The melody can be set to one of seven different sounds and has two volume levels - medium and loud. The unit is supplied with a neck lanyard and mounting hardware for the transmitter button.

- Requires 4 x C cells, available separately
- 210mm long

	Cat.	Qty 1+	Qty 4+	Qty 8+
	LA-5002	$49.95	$44.90	$39.90

SECURITY LIGHTING

Motion Activated Tracking Spotlight

Mount the light to the eave or wall of your house facing the driveway, pathway, doorway, yard or other areas that you want illuminated at night. Once the front facing PIR sensor is activated the light will pan left or right, following the person's movement. Use it to track an intruder or to help illuminate your way from the car port to the back door for example. The 4 x 3W LEDs combine to produce a remarkable 500 lumens of light. LEDs and another PIR sensor are also built into the base to thwart any attempt to sneak past. Use the remote control to manually adjust the brightness and horizontal direction of the light. Supplied with mains plugpack, extension power lead, remote control and mounting hardware.

- LED type: 4 x 3W Nichia brand LEDs
- Combined Output: 500 Lumens
- Rotational range of light: 240˚
- Motion Detection Tracking via Adjustable Dual Front-Facing PIR Sensors:
  - Narrow: up to 150˚, detection is spread across left, centre, right equally
  - Wide: up to 180˚, detection priority is given to left and right
- Detection up to 13m away depending on vertical angle
- PIR sensor and LED built into base
- Built-in dummy camera with blinking LED
- Dimension: 215(L) x 77(Dia)mm (without bracket)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	SL-2705	$149.00	$133.95	$118.95

Solar LED Lighting Kit - Low Power

Ideal for garages, gazebos and greenhouses. The solar panel is equipped with a swivel base that will allow for custom positioning for maximum light absorption. It is weatherproof able to withstand the harshest conditions. A total breeze to install. Pack includes solar panel and mounting bracket, 2.4m cable and rechargeable enclosed Ni-Cd battery.

- Rechargeable battery: 3.6V 600mAh Ni-Cd
- Solar panel dimensions: 175(W) x 127(H) x 15(D)mm
- Lamp dimensions: 180(W) x 62(H) x 50(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	SL-2715	$34.95	$31.45	$27.90

Battery Powered 2W LED Sensor Light

Illuminate without the use mains electricity with this 2W CREE LED sensor light. Easily mounts to any outdoor area, this light will give you up to 180° of motion detection. The angle of the light and PIR detector are fully adjustable. With an adjustable "off" delay you can programme the unit to match your outdoor environment. Using 4 x C size batteries you can get up to 110 days of use before needing to change the batteries. * Based on 20 seconds of light, 15 times per day using an alkaline battery

Specifications	
High output LED	1 x 2W High Output LED
Battery use	4 x C size batteries (not included)
PIR detection range	100-180 degrees
Power consumption	600mA (when on)
Dimensions	95(L) x 240(H) x 137(D)mm

	Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
	96	SL-2711	$29.95	$26.90	$23.70

Solar Powered 3W LED Sensor Light

Most LED sensor lights available in the market just dont provide enough light output. This high powered CREE® LED solar sensor lights provide a very bright focused beam of light to illuminate your driveway, entry way or backyard. Despite the extremely bright light output, it has exceptionally low power requirements. A waterproof solar panel is supplied with a 5m lead to keep the rechargeable battery topped up. Each unit has a built-in PIR motion detector which automatically turns the light on from an adjustable period of 5 to 20 seconds. A fully self sustained lighting kit; these are perfect for applications where mains power is unavailable.

- Stylish and smart in design
- Very simple and easy to install.
- 3W CREE® LED spotlight
- Adjustable swivel head
- High output 3Watt LEDs for ultra bright light

Specifications	SL-2707
Output	3W LED for ultra bright light
Battery	Ni-MH battery
Detection range	100-180 degrees
Detection distance	8 metres
Solar light dimensions	95(L) x 240(H) x 137(D)mm
Solar panel dimensions	140(L) x 198(H) x 66(D)mm

	Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
One Spotlight	108	SL-2707	$64.95	$58.50	$51.95

Solar Rechargeable Sensor Spotlights

A simple method for adding a level of security in areas that may require costly or cumbersome cabling, or where no mains is available. It's a fully standalone solar light with a PIR and wireless announcer. When motion is detected, the light automatically turns on at a user selectable setting of 5 seconds, 20 seconds, or flashing for 20 seconds. The built in transmitter can also send signals to a wireless announcer up to 100m away that will generate an alert sound. Mount the solar panel at a good angle to the absorb maximum sunlight and it will charge the solar lights rechargeable batteries. An easy to install, trouble-free device ideal for many security applications.

- Solar Light with PIR
- Tough ABS housing

Specifications	
LED	CREE XML
Lumens	500
Power	5x1.2V AAA battery pack included
Detection range	6-7m
Dimensions	240(H) x 110(W) x 150(D)mm
Wireless announcer	
Frequency	433MHz
Range	100m unobstructed
Power	Requires 4 x D Cell Alkaline Batteries
Dimensions	120(W) x 142(H) x 53(D)mm
Solar Panel	
Dimensions	175(W) x 160(H) x 50(D)mm

Cat. SL-3236

SOLAR RECHARGEABLE SENSOR SPOTLIGHT

Choose this model if you have no requirement for the wireless announcer contained in SL-3236. Comes with the same solar panel and rechargeable sensor light with PIR and shares all the same functions.

Specifications	
LED	CREE® XML
Lumens	500
Power	5x1.2V AAA battery pack included
Detection range	6-7m
Dimensions	240(H) x 110(W) x 150(D)mm

Cat. SL-3234

EMERGENCY LIGHT WITH PIR

An emergency lighting solution suitable for hallways, entry and exit points. The mains power supply charges the internal battery to ensure illumination is available during power outages. Also acts as a standard PIR spotlight to illuminate paths when motion is detected. Features the same selectable light settings and PIR.

Specifications	
LED	CREE® XML
Lumens	500
Power	5 x 1.2V AAA battery pack included
Detection range	6-7m
Dimensions	240(H) x 110(W) x 150(D)mm

Cat. SL-3232

	Cat.	Qty 1+	Qty 5+	Qty 10+
Sensor Spotlight with Announcer	SL-3236	$129.00	$115.95	$102.95
Sensor Spotlight without Announcer	SL-3234	$99.00	$88.95	$78.95
Emergency Light with PIR	SL-3232	$69.95	$62.95	$55.95

INTERCOM / DOORPHONES

2 Station Wired Intercom

Either station can signal the other even when the system is off. It can be used as a room/baby monitoring system.

- Solid state circuit
- Adjustable volume
- Call facility even when unit is off
- Hands-free communication on sub-station
- Requires on 9V battery or 240V plugpack use MP-3146
- Supplied with 20m of connecting cable and staples.

Domestic use only. Warranty does not apply if product is used industrially.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4310	$24.95	$22.35	$19.70

2 Station Wireless FM Intercom

Plugs into a 240V power point and will send to another room, upstairs etc. Both units need to be on the same channel and on the same mains phase to communicate. The intercom has a built-in monitor function so you can put one in a baby's room and listen from another location around the house. Additional units can be added to the system to provide a multi-point intercom system.

- Transmission through house wiring
- 2 Channels
- Sold as a pair
- Power points used must be on same phase, ideally the same circuit

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AI-5500	$74.74	$67.50	$59.95

Wireless Intercom Doorphone - 2.4GHz

NEW 2013

A compact wireless intercom/doorphone with 2.4GHz digital transmission for crystal clear and interference free range up to 100m range. Never miss anyone at your door with the portable receiver as it incorporates rechargeable batteries and can be taken around the house or even the garden. Comes with 240V mains charger.

- Traditional ding dong sound
- Powered by 4 x AA batteries for outdoor unit (not included)
- Powered by 3 x AAA rechargeable batteries for indoor unit (included)
- Weatherproof outdoor unit
- Operating range up to 100 metres
- Two way interference free intercom
- Name plate will glow in dark
- Portable indoor unit
- Press to talk with the visitors

Dimensions:
- Outdoor unit: 135(L) x 95(W) x 30(H)mm
- Indoor unit: 115(L) x 67(W) x 35(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4332	$79.95	$71.95	$63.95

Video Door Peephole Viewer with Image Capture

NEW 2013

See who is on the other side of your door at the press of a button with this compact video peephole viewer. Using an adaptor to connect a camera to the peephole lens, it displays video from the other side of your door on a clear 3" LCD screen. Each time the power button is pressed the viewer can also capture a snapshot of the camera image to a MicroSD card (available separately). By allowing you to see through the peephole without pressing your face to the door it is ideal for people who can't reach the original view lens and provides substantially improved vision over traditional optical viewers. Suitable for replacing most existing peepholes it can also be easily installed on most doors using the adjustable length adaptor tube. Image capture can also be triggered by adding either the knock or PIR sensor modules (available separately).

- Power Requirements: 2 x AA batteries (not included)
- Peephole tube diameter: 12mm
- Peephole tube length: 33 to 45mm
- Viewer dimensions: 158(H) x 87(W) x 32(D)mm

Accessories to suit

PIR MOTION SENSOR TO SUIT VIDEO PEEPHOLE VIEWER

NEW 2013

An add-on module to suit the QC-3735 video peephole viewer. The PIR sensor detects movement outside your door and wirelessly activates the image capture in the viewer module. With a maximum sensing range of approximately 2 metres and an adjustable mounting bracket you can point the sensor to only pick up people approaching the door and ignore your garden moving in the breeze. The PIR is powered by 2 x AA batteries (not included) while the receiver module fits inside the expansion port of the viewer module and is powered by the main viewer batteries. Includes an LED status light to show when movement is detected and when the battery is running low.

- PIR sensor range: 2m
- PIR sensor angle: 60 degrees
- PIR power: 2 x AA batteries (not included)
- Maximum sensor to receiver distance: 5m

- Sensor: 90(H) x 68(W) x 25(D)mm
- Mounting Bracket: 72(H) x 44(W) x 40(D)mm
- Receiver Module: 37(W) x 29(H) x 6(D)mm

VIBRATION KNOCKING SENSOR TO SUIT VIDEO PEEPHOLE VIEWER

NEW 2013

An add-on module to suit the QC-3735 video peephole viewer, the vibration sensor detects when there is a knock on the door and triggers the image capture in the viewer module. Fits neatly inside the expansion port of the viewer module and is powered by the main viewer batteries.

- Dimensions: 37(W) x 29(H) x 6(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Viewer with Image Capture	QC-3735	$225.00	$205.00	$179.95
PIR Motion Sensor	QC-3736	$84.95	$76.50	$67.95
Vibratrion Knocking Sensor	QC-3737	$44.95	$40.45	$35.90

VIDEO DOORPHONES - WIRELESS

Wireless 7" Colour Video Doorphone with Recording

Add a video door phone to your home or office without the need to run wires. Power the weatherproof outdoor unit from the included power supply or from 6 x AA batteries (not included), which will last up to 6-months of domestic use. View and speak to visitors from the 7" colour monitor and unlock the door at the press of a button (door lock required). Another unique feature is it's ability to record any visitors you had while you were out, saving the vision to an SD card (available separately). Supplied with power supplies for outdoor and indoor units, DC power and door lock cables and mounting hardware.

- Weatherproof (IP-55) camera with rain shield
- 2.4GHz for transmission up to 100m
- Digital encryption with code-hopping
- One-touch door unlock button
- IR LEDs for night time illumination up to 0.8m
- AV output to a TV or other monitor
- Resolution: 640 x 480 (VGA)
- Camera sensor: 1/4" CMOS
- Camera viewing angle: 85° Horizontal 65° Vertical
- SD card video capacity (not included):
  1GB: 110 mins / 2GB: 250 mins
  8GB: 1070 mins / 16GB: 2170 mins
  32GB: 4300 mins
- Dimensions:
  Door unit: 169(H) x 85(W) x 36(D)mm
  Answering unit: 221(W) x 143(H) x 35(D)mm

TECH TIP!
2.4GHz DIGITAL

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3621	$299.00	$269.00	$239.00

Video Doorphones

VIDEO DOORPHONES - WIRED

Slimline 3.8" Colour LCD Video Doorphone

Don't settle for Black and White! With this cost effective full colour LCD video Door phone, you can see you guest in full living colour. Integrates a 3.8" LCD screen and an infrared cmos camera, you are able to see and communicate with your visitors day and night. With the added feature of electronic door locking control, you have the option of allowing visitors in and keep out unwanted ones out. The slimline wall mounted design, it will not look out of place in your home or office.

- 3.8" TFT LCD screen
- Slimline design
- Infrared LEDs built-in to the camera for night use
- Mains power supply included
- Monitor dimensions: 125(L) x 215(H) x 23(D)mm
- Outdoor camera dimensions: 100(L) x 134(H) x 38(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3604	$129.00	$115.95	$102.95

2.5" LCD Video Doorphone with RFID access

Enjoy the peace of mind a video doorphone can bring. This stylish and high quality unit consists of an outdoor camera with door bell/entry button as well as RFID access and a separate indoor 2.5" LCD for easily identifying visitors. With the indoor unit, you can remotely lock/unlock the door (door lock available separately), switch on video and answer calls. The outdoor camera uses 6 x white high brightness LEDs to illuminate visitors at night. Pressing the bell button on the outdoor camera will signal a bell warning on the indoor unit which can be answered like a regular telephone. You can then verbally communicate and see video footage of your guest.

RFID keys can be programmed for access so regular users of the system are granted entrance by simply placing their tag over the outdoor camera unit. 3 tags are included with the unit, a master, slave, and delete tag. Use the master tag to program new slave tags (standard RFID cards can be used), and use the delete tag to remove tags from the system.

A versatile device suitable for home use, or offices that require some form of access identification/authorisation for staff or frequent visitors.

2.5" Colour LCD
Outdoor camera dimensions: 142(H) x 92(W) x 40(D)mm
Monitor dimensions: 180(H) x 79(W) x 33(D)mm

Spare RFID tag available separately - QC-3623

	Cat.	Qty 1+	Qty 2+	Qty 4+
Video Doorphone	QC-3622	$249.00	$225.00	$198.95
Spare RFID Tag	QC-3623	$9.95	$8.75	$7.75

Slimline 7" Colour LCD Video Doorphone

This easy to use video door phone is great for screening visitors without even having to come to your door. Supplied with a high-resolution infrared CCD camera, high quality images are displayed through the 7" full colour LCD display. Integrates an intercom function which allows you bi-directional interference free conversation. For added security you can lock or unlock your door with one touch and even use it as an alarm system. Easy to install, the super slim design makes it great for any modern home and you will have it up and running in no time.

- 7" TFT LCD screen
- CCD Camera
- Infrared for use at night
- 19mm super slim touch screen

Specifications	
Power supply	15VDC
Resolution	420 TV lines
Monitor	235(L) x 165(H) x 24(D)mm
Outdoor camera	100(L) x 134(H) x 45(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-3608	$199.00	$178.95	$158.95

8" Colour LCD Doorphone System with 4 Channel Recording

This is the next generation in video door phone entry systems. The 8-inch high resolution LCD screen connects up to two intercom/camera unit like a traditional door phone. This powerful video door phone unit also has a built in Digital Video Recorder (DVR) with a four camera input. You can connect up to 4 additional security cameras (QC-3629) to the screen, giving you four-channel security. The monitor can then display a multi-way split screen view, or auto-switch between channels. With 500GB Hard drive included for storage, you can keep a record of whoís coming and going. Supports manual, motion detection, visitor call and loop coverage recording functions. The unit also features remote access from the internet, so you can keep an eye on your surveillance system from anywhere in the world!

- 8" TFT LCD colour screen
- Quad split screen or full screen display
- Total of 6 video inputs
- Hard drive capacity: 2.5"/ 500GB Hard drive
- Remote access over Ethernet or internet
- Set up like a desktop computer or mount to the wall
- Mains power supply included
- Monitor dimensions: 210(H) x 250(W) x 35(D)mm

TECH TIP!
Includes 500GB Hard Drive

SPARE/ADDITIONAL CAMERA TO SUIT QC-3628

This camera will expand the functionality of your QC-3628 Video Door Phone / DVR system to a multi-channel surveillance system. The camera is easily mounted and positioned with the ball-head bracket, and connects easily into the monitor unit.

- Camera dimensions: 110(H) x 115(W) x 24(D)mm (excluding shade)

Cat. QC-3629

	Cat.	Qty 1+	Qty 2+	Qty 4+
Doorphone System	QC-3628	$549.00	$495.00	$439.00
Additional Camera	QC-3629	$79.00	$70.95	$62.95

Arduino Fridge Temperature Gauge

Makers Name: Andre Gascoigne

We recently bought an old house and got to keep the owner's old fridge. The problem was that nothing seemed to last too long, and my beer seemed warm! I decided to investigate using my Freetronics Ethermega, LCD screen and temperature module. After a little coding I've got myself a highly accurate thermometer which gives me the current temperature, as well as recording the max and minimums reached too! Now the beer is cold and I'm back concentrating on the renovations!

For more details scan the QR code or go to www.jaycar.com.au/makers

AUTOMATIC ACCOUNT

For Schools, Government Departments, Public Companies, Radio & TV Stations

Its good fun working at Jaycar. For one, we get to play with the new products before you do. One of the of the things that never ceases to amaze us is the incredible improvements in LED Lighting technology.

On your right you will see the latest in Light Globes - completely LED. This bypasses the CFL type light globe, completely effortlessly and with far better efficiency. We will look back at the attempts to replace incandescent globes with ugly, poisonous and inefficient CFL's with acute embarrasment!

This is just a part of the exciting new products that we have in this section of the catalogue.

We also have a fantastic new range of LED replacements for Halogen Downlights pages 370 - 371.

On a completely separate tack we have an exciting new Home Automation product - see pages 380-382.

If you do nothing else, you <u>really</u> need to update yourself on LED Lighting technology

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MAINS LED GLOBES

240V Mains LED Light Globes

NEW 2013

A range of mains LED light globes that are a true replacement for traditional lighting, offering brilliant lumen performance with wide, evenly spread light. Unlike many other types on the market with only 180 degree light angle, these lights have a truly even light output across a 270 degree output angle, making them better than traditional light globes in many cases. Available in both warm white and natural white colours, with bayonet or screw cap, and in either 5W, 8W or 10W, and all models having a colour rendering index above 80. All models are also dimmable with standard leading or trailing edge light dimmers, or you can use the Viribright dimmer switch, PS-4084. Typical payback period is just 9-12 months, see our online calculator to see how much you can save!

VIRIBRIGHT The bright side of light

SL-2210

SL-2214

Cat.	Power	Lumens	Colour	Base	Beam spread	Colour temp	Traditional equivalent
SL-2210	5W	400	Warm white	Bayonet	270°	2800K	40W
SL-2211	5W	400	Warm white	Screw	270°	2800K	40W
SL-2212	5W	450	Natural white	Bayonet	270°	4000K	40W
SL-2213	5W	450	Natural white	Screw	270°	4000K	40W
SL-2230	8W	500	Warm white	Bayonet	270°	2800K	60W
SL-2231	8W	500	Warm white	Screw	270°	2800K	60W
SL-2232	8W	650	Natural white	Bayonet	270°	4000K	60W
SL-2233	8W	650	Natural white	Screw	270°	4000K	60W
SL-2214	10W	820	Warm white	Bayonet	270°	2800K	80W
SL-2215	10W	820	Warm white	Screw	270°	2800K	80W
SL-2216	10W	900	Natural white	Bayonet	270°	4000K	80W
SL-2217	10W	900	Natural white	Screw	270°	4000K	80W

2 YEAR WARRANTY

Power	Colour	Base	Cat.	Qty 1+	Qty 3+	Qty 6+
5W	Warm white	Bayonet	SL-2210	$14.95	$13.35	$11.70
5W	Warm white	Screw	SL-2211	$14.95	$13.35	$11.70
5W	Natural white	Bayonet	SL-2212	$14.95	$13.35	$11.70
5W	Natural white	Screw	SL-2213	$14.95	$13.35	$11.70
8W	Warm white	Bayonet	SL-2230	$22.95	$20.35	$18.35
8W	Warm white	Screw	SL-2231	$22.95	$20.35	$18.35
8W	Natural white	Bayonet	SL-2232	$22.95	$20.35	$18.35
8W	Natural white	Screw	SL-2233	$22.95	$20.35	$18.35
10W	Warm white	Bayonet	SL-2214	$29.95	$26.90	$23.70
10W	Warm white	Screw	SL-2215	$29.95	$26.90	$23.70
10W	Natural white	Bayonet	SL-2216	$29.95	$26.90	$23.70
10W	Natural white	Screw	SL-2217	$29.95	$26.90	$23.70

240V Mains LED Candle Globes

NEW 2013

We also stock LED powered candle bulbs for chandeliers and other lavish light fittings. Both models are 3.2W with an output angle of 270 degree and are dimmable. Long life, low energy consumption, and no hazardous mercury make these a sound investment.

Cat.	Power	Lumens	Colour	Base	Beam spread	Colour temp	Traditional equivalent
SL-2220	3.2W	230	Warm white	E14	270°	2800K	30W
SL-2222	3.2W	260	Natural white	E14	270°	4000K	30W

2 YEAR WARRANTY

Colour	Type	Cat.	Qty 1+	Qty 3+	Qty 6+
Warm White	Candle Bulb	SL-2220	$19.95	$17.70	$15.70
Natural White	Candle Bulb	SL-2222	$19.95	$17.70	$15.70

200W Mains Dimmer Switch

NEW 2013

Suitable for Dimmable LED Bulbs or Incandescent lights.

- Push ON/OFF or rotate to adjust light level.
- Operating Voltage: 200-240VAC,1A
- Maximum Power: 200W
- Control Type: Single Pole (One Location)
- Configuration: Leading Edge or Trailing Edge
- Colour: White

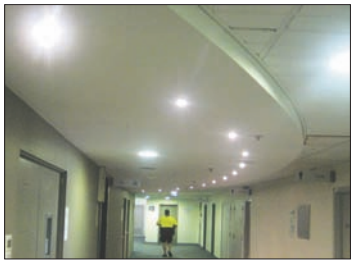
2 YEAR WARRANTY

↗	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4084	$24.95	$22.35	$19.70

LED Downlights

ECO-LIGHTING LED REPLACEMENT LAMPS

LED downlights have a lot of benefits over their traditional halogen counterparts, the biggest of which are their significantly lower power consumption (around 70 - 90% less), longer life expectancy (50,000 vs 2,000 hours) and significantly lower heat generation. Installation is generally as easy as replacing a globe. See our website for full details and specifications.



MR16 REPLACEMENT LAMPS - 12VAC/DC

MR16 24 x 2835 - SMD LED Downlights - 12VAC/DC

NEW 2013

Ideal for caravans and mobile homes, household lighting, shop fittings, or anywhere a bright downlight is required to illuminate your surrounds. Featuring 24 of the highest output 2835-type SMD LEDs, they put out over 450 lumens of warm white or cool white light depending on which colour you chose. As well as the colour options, you can chose between wide angle 120° output, or narrower 60° light output versions. For added flexibility, you can also dim the light output using our MP-3209 12VDC dimmer module and a suitable 12VDC power supply.

Cat No.	ZD-0540	ZD-0541	ZD-0542	ZD-0543
Power consumption	4W	4W	4W	4W
LED(s)	24 x 2835 SMD	24 x 2835 SMD	24 x 2835 SMD	24 x 2835 SMD
Power per LED				
Brightness	450 lumens	450 lumens	450 lumens	450 lumens
Colour	Cool white	Warm white	Cool white	Warm white
Input voltage	12VAC/DC	12VAC/DC	12VAC/DC	12VAC/DC
Lens angle	120˚	120˚	60˚	60˚
Fitting	MR16	MR16	MR16	MR16
Dimensions (dia x L)	50 x 46mm	50 x 46mm	50 x 46mm	50 x 46mm

Colour	Angle	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	120˚	ZD-0540	$19.95	$17.70	$15.70
Warm White	120˚	ZD-0541	$19.95	$17.70	$15.70
Cool White	60˚	ZD-0542	$19.95	$17.70	$15.70
Warm White	60˚	ZD-0543	$19.95	$17.70	$15.70

MR16 6W COB LED Downlights - 12VAC/DC

High quality MR16 low-voltage LED downlight globes featuring a Shineon 6W COB LED module that produces over 500 lumens of brilliant light, making them a true halogen replacement, providing equivalent or better light output! Built in a cold forged aluminium housing, heat dissipation is far superior to most LED downlight globes; ensuring you get the full 30,000+ hour life expectancy. If saving power and lasting a lifetime weren't enough, they are also dimmable!

- To power use MP-3209 PWM 12VDC dimmer and a suitable 12VDC power supply

NEW 2013

Two models available:

Cat No.	ZD-0620	ZD-0621
Power consumption	6W	6W
LED(s)	Shineon COB	Shineon COB
Power per LED	6W	6W
Brightness	550 lumens	530 lumens
Colour	Cool white	Warm white
Input voltage	12VAC/DC	12VAC/DC
Lens angle	60˚	60˚
Fitting	MR16	MR16
Dimensions (dia x L)	50 x 45mm	50 x 45mm

Colour	Type	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	MR16	ZD-0620	$29.95	$26.90	$23.70
Warm White	MR16	ZD-0621	$29.95	$26.90	$23.70

MR16 3 x 1W CREE® LED Lamps - 12VAC/DC

CREE LED Light

Each uses three CREE® XP-C LEDs driven at 1W each

- MR16 base
- Best if powered by linear transformers or switchmode DC supplies
- Equivalent to a 20W halogen
- 12VAC/DC

NEW LOWER PRICE

3 X 1W CREE® MR16 DOWNLIGHT - 38° - WARM WHITE
Cat. ZD-0351

1 X 3W CREE® MR16 DOWNLIGHT - 38° - WHITE
Cat. ZD-0352

1 YEAR WARRANTY

Cat No.	ZD-0351	ZD-0352
Power consumption	3W	3W
LED(s)	3 x CREE® XP-C	3 x CREE® XP-C
Power per LED	1W	1W
Brightness	220 lumens	220 lumens
Colour	Warm White	White
Input voltage	12VAC/DC	12VAC/DC
Lens angle	38˚	38˚
Fitting	MR16	MR16
Dimensions (dia x L)	50 x 38mm	50 x 38mm

		Cat.	Qty 1+	Qty 2+	Qty 4+
3 x 1W	Warm White	ZD-0351	$24.95	$22.35	$19.70
1 x 3W	White	ZD-0352	$24.95	$22.35	$19.70

MR16 3 x 2W CREE® LED Downlights - 12VAC/DC

- Each uses three CREE® XP-E LEDs driven at 2W each
- MR16 base
- Best if powered by linear transformers or switchmode DC supplies
- Equivalent to a 35W halogen
- 12VAC/DC

CREE LED Light

3 X 2W CREE® MR16 - 38° - WHITE
Cat. ZD-0353

3 X 2W CREE® MR16 - 38° - WARM WHITE
Cat. ZD-0354

1 YEAR WARRANTY

NEW LOWER PRICE

Cat No.	ZD-0353	ZD-0354
Power consumption	7W	7W
LED(s)	3x CREE® XP-E	3x CREE® XP-E
Power per LED	2W	2W
Brightness	450 lumens	310 lumens
Colour	White	Warm White
Input voltage	12VAC/DC	12VAC/DC
Lens angle	38º	38º
Fitting	MR16	MR16
Dimensions (dia x L)	50 x 63mm	50 x 63mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
Cool White	ZD-0353	$29.95	$26.90	$23.70
Warm White	ZD-0354	$29.95	$26.90	$23.70

CUSTOMERS PLEASE NOTE! TECHSTORE SPECIALS

MORE INFO WEB

SUPER BARGAINS ONLY AVAILABLE THROUGH TECHSTORE

Many of you who see our regular ads have made personal visits for some products not available to shop customers. These products are usually in such short supply there is simply not enough to distribute to all stores. Indeed some items could be as few as half a dozen. Such goods are sold through our "TECHSTORE". When we advertise these products, we box them in a special section marked off with 'TECHSTORE ONLY - NOT AVAILABLE IN RETAIL STORES'. Unfortunately many do not notice this and become angry when the product is not in their local store. Please do not blame the local manager for this, he has no control, nor can he transfer stock from the TECHSTORE to his shop for you. If you wish to buy these items you must hurry and order direct to the TECHSTORE.

REPLACEMENT LED LAMPS 240VAC

GU10 Mains 24 x 2835 - SMD LED Downlights - 240VAC

NEW 2013

A perfect solution for domestic lighting, shop fittings and many other applications where a stable, bright light is desired as well as providing significant savings on your power bills.

Featuring 24 of the highest output 2835-type SMD LEDs, they put out over 450 lumens of warm white or cool white light depending on which colour you chose.

For different applications, you can also chose between 120° output and 60° models.

To round it off, you can use these GU10 mains LED downlights on a standard light dimmer circuit (Clipsal® trailing edge recommended).

Specifications	ZD-0544	ZD-0545	ZD-0546	ZD-0547
Power consumption	4W	4W	4W	4W
Fitting	GU10	GU10	GU10	GU10
Colour	Cool white	Warm white	Cool white	Warm white
Colour temp	5500K	3000K	5500K	3000K
LED type	24x 2835 SMD LED	24x 2835 SMD LED	28x 2835 SMD LED	24x 2835 SMD LED
Brightness	450 lumens	450 lumens	450 lumens	450 lumens
Input voltage	240VAC	240VAC	240VAC	240VAC
Lens angle	120°	120°	60°	60°
Dimensions	50(D) x 46(H)mm	50(D) x 46(H)mm	50(D) x 56(H)mm	50(D) x 56(H)mm

	Colour	Angle	Cat.	Qty 1+	Qty 3+	Qty 6+
	Cool White	120°	ZD-0544	$19.95	$17.70	$15.70
	Warm White	120°	ZD-0545	$19.95	$17.70	$15.70
	Cool White	60°	ZD-0546	$19.95	$17.70	$15.70
	Warm White	60°	ZD-0547	$19.95	$17.70	$15.70

GU10 6W COB LED Downlights - 240VAC

NEW 2013

The latest in high performance and high efficiency LED light sources with "chip-on-board" (COB), where multiple LED emitters are built into the one module. These high quality MR16 low-voltage LED downlight globes feature a Shineon 6W COB LED module that produces over 500 lumens of brilliant light. With such a bright output, these globes are a TRUE halogen replacement, providing equivalent or better light output! Built in a cold forged aluminium housing, heat dissipation is far superior to most LED downlight globes; ensuring you get the full 30,000+ hour life expectancy. If saving power and lasting a lifetime weren't enough, they are also dimmable!

- Use a standard triac dimmer (Clipsal® trailing edge recommended).

Two models available:

Specifications	ZD-0625	ZD-0626
Power consumption	6W	6W
Fitting	GU10	GU10
Colour	Cool white	Warm white
Colour temp	5500K	3000K
LED type	6W COB	6W COB
Brightness	550 lumens	530 lumens
Input voltage	240VAC	240VAC
Lens angle	60°	60°
Dimensions	50(D) x 48(H)mm	50(D) x 48(H)mm

	Colour	Angle	Cat.	Qty 1+	Qty 3+	Qty 6+
	Cool White	60°	ZD-0625	$29.95	$26.90	$23.70
	Warm White	60°	ZD-0626	$29.95	$26.90	$23.70

GU10 Base Socket

Socket and base for GU10 downlights.

- 150mm flying lead with terminal block.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4076	$7.95	$6.95	$6.25

GIFT CARD

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OTHER REPLACEMENT LAMPS - LOW VOLTAGE

MR11 3W CREE® LED Downlights - 12VAC/DC

NEW LOWER PRICE

Often used for caravan lighting and in reading lights, MR11 is slightly smaller than MR16. Aluminium housing ensures adequate heat dissipation from the high power CREE® LED inside.

- Each uses one CREE® XP-E LED driven at 2.6W
- MR11 housing and base
- Best if powered by linear AC downlight transformer or 12VDC supply
- Equivalent to a 10-15W halogen globe

CREE LED Light

1 YEAR WARRANTY

Specifications	ZD-0541	ZD-0343
Power consumption	3W	3W
LED(s)	1x CREE® XP-E	1 x CREE® XP-E
Power per LED	2.6W	2.6W
Brightness	130 lumens	130 lumens
Input voltage	12VAC/DC	Warm White
Lens angle	60°	12VAC/DC
Dimensions	35 x 35mm	60°

	Cat.	Qty 1+	Qty 3+	Qty 6+
White	ZD-0341	$14.95	$13.35	$11.70
Warm White	ZD-0343	$14.95	$13.35	$11.70

MR11 12 x 5050 SMD LED Downlights, 120° - 12VAC/DC

Great for use as reading lights in caravans but also suitable for a variety of other applications.

Two models available:

Specifications	ZD-0562	ZD-0563
Fitting	MR11	MR11
Input power	12VAC/DC	12VAC/DC
Brightness	130 lumens	130 lumens
Lens angle	120 degree	120 degree
Colour temperature	5000-7000k	2700-3500k
LED Type	12 x 5050 SMD LEDs	12 x 5050 SMD LEDs
Dimensions	34(Dia) x 29(D)mm	34(Dia) x 29(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	ZD-0562	$14.95	$13.35	$11.70
Warm White	ZD-0563	$14.95	$13.35	$11.70

G4 5050 SMD LED Replacement Lights - 12VAC/DC

Makes use of 12 x 5050 SMD LEDs to output up to 120 lumens of extremely bright light. Great for use as a low wattage replacement globe in desk lamps, rangehoods, and other household applications.
Features a 120 degree lens angle for a broad spread of light.

1 YEAR WARRANTY

Specifications	ZD-0568	ZD-0569
Power	1.6W	1.6W
Light output	120 lumens	120 lumens
Lens angle	120°	120°
Colour	Cool white	Warm white
Colour temperature	5000-7000K	2700-3500K
Dimension	27(Dia)mm	27(Dia)mm
Input voltage	12VDC/AC	12VDC/AC

	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	ZD-0568	$13.95	$12.35	$10.95
Warm White	ZD-0569	$13.95	$12.35	$10.95

G4 Samsung LED Replacement Lights - 12VAC/DC

NEW 2013

Low wattage replacement G4 LED lights to be used in lamps, caravans, etc. Cool white and warm white models are available. LEDs are from Samsung so you know you're buying quality.

Specifications	ZD-0557	ZD-0558
Power	1.2-1.5W	1.2-1.5W
Light output	90-110	90-110
LED	Samsung 2323 SMD	Samsung 2323 SMD
Colour	Warm white	Warm white
Colour temperature	2700-3500K	5000-7000K
Input voltage	12VDC/12VAC	12VDC/12VAC
Dimensions	23(L) x 10.2(Dia.)mm	23(L) x 10.2(Dia.)mm

		Cat.	Qty 1+	Qty 3+	Qty 6+
Warm White	Each	ZD-0557	$11.95	$10.70	$9.50
Cool White	Each	ZD-0558	$11.95	$10.70	$9.50

LED Downlight Kits

12VDC E14 Base LED Globe

A very bright LED globe for any variety of applications such as solar systems, shed lighting, camping, etc, where 12VDC power is readily available. Drawing just 5W of power, and producing around 450 lumens of light, this globe is an excellent solution for energy efficient lighting. Fitted with an E14 screw base.

Specifications	
Voltage	12VDC
Power	5W
Brightness	450 lumens
Colour	Cool white (5500K)
LED type	9x 5630SMD
Light angle	360°

	Cat.	Qty 1+	Qty 3+	Qty 6+
	SL-2851	$24.95	$22.35	$19.70

ELECTRONIC TRANSFORMERS

Electronic Transformers for LED Lights

Electronic transformers that are intended for use with halogen downlights are not suitable for use with LED-replacement lighting products, since using them often causes flickering and dramatically reduces the life expectancy of the LED light. These electronic transformers are designed to be used with LED lighting products that take a 12V power source, for example our LED MR16 replacement globes, and provide the same kind of efficient power delivery and compact size as a normal electronic transformer. They deliver a constant 12VDC and feature short circuit, over temperature, over load and spike protection. Suitable for domestic and commercial applications, they are perfect for combining with our LED MR16 globes to replace those power-hungry halogen downlights.

	Cat.	Qty 1+	Qty 3+	Qty 6+
10 Watt	MP-3360	$19.95	$17.70	$15.70
20 Watt	MP-3362	$24.95	$22.35	$19.70

Dimmable Constant Current LED Driver 10W 700mA

This is the same high quality constant current, dimmable, LED driver we use in our 9W Ecolume LED downlight kits. A compact mains powered unit, capable of driving 1-4 high power LEDs at a constant current of 700mA (10W max), whilst also being dimmable with a standard leading or trailing edge triac dimmer; it is an excellent driver for domestic LED lighting projects or as a replacement for a failed LED driver. Also features overload and short circuit protection, and carries full electrical safety approval.

- Overload & short circuit protection
- Dimmable with leading edge or trailing edge

Specifications	
Input voltage	220-240VAC, 50/60Hz
Power factor	0.90
Output voltage (no load)	14VDC
Constant current output	700mA (max), 50-690mA (dimming range)
Electrical safety approval	A/12244EA
Dimensions	112(L) x 40(W) x 25(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
10 Watt	MP-3365	$29.95	$26.90	$23.70

TECH TIP

LED INFORMATION

Power supply requirements for LED lamps or lighting modules, such as our MR16 LED downlight replacement globes, can vary considerably and it is essential that a suitable power supply is used. Switchmode transformers, or "electronic transformers" that are designed to run halogen lights, should not be used with LED lighting modules or lamps unless they are specifically certified to do so. In simple terms, LED lamps are compatible with all types of magnetic (linear) transformers, but not all types of switchmode transformers. Most halogen lamp switchmode transformers require a minimum load to function correctly and output a high frequency pulse train based on the load requirements. As LED lamps draw a fraction of the current of an equivalent halogen lamp (typically ~1/10th), this usually results in problems such as flickering, strobing, or in some cases, no light at all. It may also reduce the life expectancy of the LED lamp. It is essential the maximum input voltage of the LED lamp or module is not exceeded and the power supply can deliver the necessary current required in a linear manner. If using switchmode or electronic power supplies, make sure they are designed for use with LED lamps, otherwise use a linear power supply or a DC output power supply.

LED DOWNLIGHT KITS

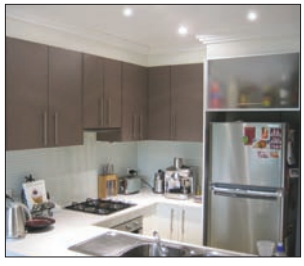
Ecolume Mains 9W Downlight Kits - 240VAC

With the ever increasing cost of electricity bills, more and more people are looking to alternative lighting solutions; and LED technology is presenting a viable and popular alternative to halogen or CFL lighting sources. This latest offering in the Ecolume lighting range represents the latest and greatest in LED technology and performance, consuming a meagre 9W of power whilst producing almost 700 lumens of light thanks to the four Philips-Lumileds Luxeon Rebel ES LEDs. That's virtually as much light as a 50W halogen downlight! Being LED, the downlight operates at significantly lower temperature than halogens, with no UV output, and LED output is rated to over 50,000 hours of service. Truly a quality product with outstanding performance. Kit is supplied with dimmable LED driver (leading and trailing edge dimming).

Two models available:

9W - WARM WHITE
Cat. ZD-0355

9W - NEUTRAL WHITE
Cat. ZD-0357



Specifcations	ZD-0355	ZD-0357
Housing	Gimbal	Gimbal
Colour	Warm White	Neutral White
Colour Temp.	3000K	4000K
Beam Angle	38°	38°
Lumen output	686	687
Ceiling cutout	83-90mm	83-90mm

		Cat.	Qty 1+	Qty 3+	Qty 6+
9W	Warm White	ZD-0355	$79.95	$71.95	$63.95
9W	Neutral White	ZD-0357	$79.95	$71.95	$63.95

Ecolume Mains 15W Downlight Kits - 240VAC

A more energy efficient solution to halogen or CFL downlights, these 100mm LED downlights are powered by 6 x Osram® Oslon Square EC, featuring the latest in efficient LED technology from Osram. The result is a phenomenally bright light output; even higher than a 55W halogen, with over 800 lumens of light produced! Besides the significant power savings (over 75%!) we should also highlight that being LED, the 15W Ecolume downlights operate at significantly lower temperatures with no ultraviolet and carbon emissions, and will provide 50,000 hours plus of service life. Each downlight kit is supplied with a dimmable LED driver (Clipsal® trailing edge recommended) and the adjustable gimbal housing finished in white colour. Truly a high quality product with outstanding performance, we are giving these a 3 year replacement warranty.

Two models available:

Specifications	ZD-0373	ZD-0376
Housing	Gimbal	Gimbal
Colour	Warm White	Neutral White
Colour Temp.	3000K	4000K
Beam Angle	40°	40°
Lumen output	800	840
Equivalent halogen light	55W	55W
Ceiling cutout	83-90mm	83-90mm

		Cat.	Qty 1+	Qty 3+	Qty 6+
15W	Warm White	ZD-0373	$99.00	$88.95	$78.95
15W	Neutral White	ZD-0376	$99.95	$89.95	$79.95

GU10 LED Mains Voltage Downlight Kits - 240VAC

Simply cut a hole and drop them in, or replace your existing halogen downlights. Mains powered, so no additional power supplies, transformers or ballasts required, just get an electrician to wire them straight in to 240VAC. Being LED rather than halogen, they use 1/10th the power, last over 50,000 hours, or over 20 years if run for 6 hours per day! The GU10 LED lamps supplied with each kit feature three CREE XP-G LEDs, running at 2W each to produce a light output equivalent to a 30W halogen globe. Each assembly includes a junction box and spring clips to mount to any surface up to 25mm thick. White or warm white colour temperature, sold in a single kit or a pack of four.

- Cut-out: 90mm
- Light output: White 450 lumens, warm white 350 lumens
- Dimmable (with regular trailing or leading edge dimmers)

			Cat.	Qty 1+	Qty 3+	Qty 6+
3 x 2W	White	1 Pack	ST-3896	$39.95	$35.90	$31.90
3 x 2W	Warm White	1 Pack	ST-3897	$39.95	$35.90	$31.90
3 x 2W	White	4 Pack	ST-3898	$149.00	$133.95	$118.95
3 x 2W	Warm White	4 Pack	ST-3899	$149.00	$133.95	$118.95

SOLID LED STRIPS

Solid LED Strip Lights - 12 or 24VDC

An efficient, bright and affordable LED lighting solution, which is safe and easy to install. Each strip features wide angle, high brightness SMD LEDs which are powered by either 12VDC or 24VDC. They are fixed easily using the strong 3M brand self adhesive backing tape or mounted into a range of aluminium and plastic extrusions and diffusers available separately. Each 500mm length can be snapped into individual segments and are powered by either 12VDC or 24VDC. Applications include under cabinet kitchen bench lighting, hallway or mood lighting, marine/caravan/motorhome lighting, commercial strip lighting, retail shop fit outs, and many many more.

- Available in 8mm and 11mm widths, 12VDC or 24VDC, and in a choice of warm or cool white

* COMPATIBLE WITH OUR ALUMINIUM CHANNEL SYSTEM, HH-8535

	ZD-0461	ZD-0463	ZD-0465	ZD-0467	ZD-0550	ZD-0552	ZD-0554	ZD-0556
Voltage	12VDC	12VDC	24VDC	24VDC	12VDC	12VDC	24VDC	24VDC
Colour	White	Warm white	White	Warm white	Warm white	White	Warm white	White
Current	200mA	200mA	100mA	100mA	500mA	500mA	200mA	200mA
Lumen output	150	125	150	125	340	390	280	320
LED quantity	30 x 3528	30 x 3528	30 x 3528	30 x 3528	30 x 5050	30 x 5050	25 x 5050	25 x 5050
No. of segments	10	10	5	5	10	10	5	5
Light angle	120°	120°	120°	120°	120°	120°	120°	120°
Dimensions	500x8mm	500x8mm	500x8mm	500x8mm	500x11mm	500x11mm	500x11mm	500x11mm

Features:
- 8mm strips fitted with 3528 single chip SMD LEDs
- 11mm strips fitted with 5050 tri-chip SMD LEDs
- Strips can be snapped into individual segments and powered individually
- Strips can be integrated with our aluminium and plastic extrusions and diffusers

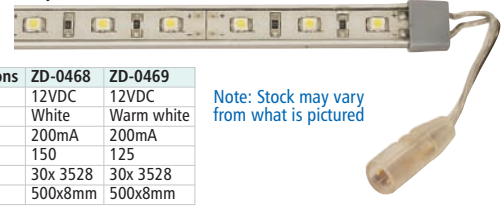
Size	Colour	Voltage	Cat.	Qty 1+	Qty 10+	Qty 25+
8mm	White	12V	ZD-0461	$19.95	$17.70	$13.70
8mm	Warm White	12V	ZD-0463	$19.95	$17.70	$13.70
8mm	White	24V	ZD-0465	$19.95	$17.70	$13.70
8mm	Warm White	24V	ZD-0467	$19.95	$17.70	$13.70
11mm	Warm White	12V	ZD-0550	$34.95	$31.45	$24.35
11mm	White	12V	ZD-0552	$34.95	$31.45	$24.35
11mm	Warm White	24V	ZD-0554	$29.95	$26.90	$20.70
11mm	White	24V	ZD-0556	$29.95	$26.90	$20.70

Note: Stock may vary from what is pictured

1 YEAR WARRANTY

IP66 Aluminium Backed LED Strip Lights - 12VDC

When a degree of weather protection is required for your LED strip lighting, look no further. IP66 rated, with a solid aluminium backing for installation in tougher environments, these are the LED strip lights of choice for marine, caravan, motorhome, or outdoor domestic and architectural applications. Powered by 12VDC and available in warm white and cool white colour temperatures, with fly leads and weatherproof connectors already fitted for ease of installation.



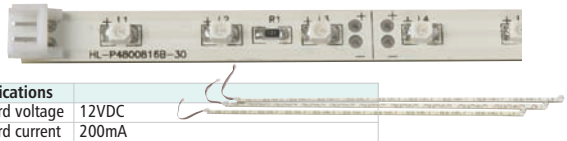
Specifications	ZD-0468	ZD-0469
Voltage	12VDC	12VDC
Colour	White	Warm white
Current	200mA	200mA
Lumens	150	125
LEDs	30x 3528	30x 3528
Dimensions	500x8mm	500x8mm

Note: Stock may vary from what is pictured

	Cat.	Qty 1+	Qty 10+	Qty 25+
12V 30 x White LED Strip	ZD-0468	$29.95	$26.90	$20.70
12V 30 x Warm White LED Strip	ZD-0469	$29.95	$26.90	$20.70

SMD LED Light Strip - 12VDC

This versatile LED light strip features 30 SMD LEDs mounted on a 480mm long piece of 8mm wide PCB. It's clever design makes it a lot more useful than many others, using a series/parallel combination to take care of power distribution. The design features a main voltage rail that runs the entire length, which makes it very easy to add extra boards in parallel. Here is where it gets interesting. The components are broken up into 10 groups containing three LEDs and a voltage drop resistor. Each group is then paralleled to the board. This ensures that there are no voltage issues along the line and also something more-each group can operate independently, and even be cut free and used as an independent 3-LED light running from 12VDC. It's really versatile, and you can find all the data on our website.

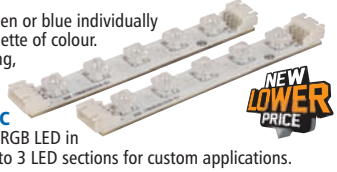


Specifications	
Forward voltage	12VDC
Forward current	200mA
Dimensions	480(L) x 8(W) x 6.2(H) mm or 10 units measuring 46(L) x 8(W)mm each

Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
White	ZD-0462	$29.95	$26.90	$20.70

RGB LED Modules - 12VDC

With this module you can control red, green or blue individually or all at once giving an almost infinite palette of colour. 12V rated and are suitable for strip lighting, mood lights, displays or signage.



NEW LOWER PRICE

3 X 10 RGB LED SMD MODULE 12VDC

Consisting of a total of 30 surface mount RGB LED in a long light strip; these can also be cut into 3 LED sections for custom applications.

5 X RGB LED MODULE 12VDC

Supplied with 5 superflux high intensity RGB LEDs in a solid length of PCB. It has a viewing angle of 85 degrees with mounting bracket and connecting wires included.

	Cat.	Qty 1+	Qty 10+	Qty 25+
3 x 10 RGB LED SMD Module	ZD-0466	$24.95	$22.35	$17.35
5 x RGB LED Module	ZD-0456	$5.50	$4.90	$3.75

LED Light Bar with Diffuser - 12VDC

Containing an LED strip with 50x 3528 LEDs, housed in durable plastic case and covered with an acrylic diffuser, this light bar provides a fully formed LED lighting solution. With no additional housing required simply install the bar in the desired location and supply it with power from a plugpack or battery. The end of the bar has a neat groove moulding to conceal the wires and allow additional units to be placed end to end without the join being noticed.

- Compatible with our aluminium channel system, HH-8535

Specifications	
Voltage	12VDC
Lumens	250
Current	500mA
Colour	Cool white 5500K
Dimensions	520(L) x 11(W) x 14(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
Sold each	ZD-0489	$29.95

TECH TIP

LED VS HALOGEN

LUMINOUS EFFICIENCY:
LEDs produce more light per watt than halogens -
(Typical halogen 50 Watt = 24Lm/w, Ecolume 15 Watt = 64Lm/w).

ON/OFF TIME AND CYCLING:
LEDs light up very quickly. They are ideal for use in applications that are subject to frequent on-off cycling, unlike fluorescent lamps that burn out more quickly when cycled frequently, or HID lamps that require a long time before restarting.

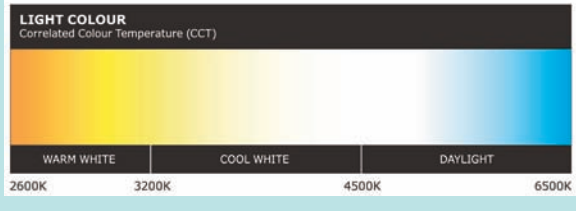
DIMMING:
LEDs can very easily be dimmed

COOL LIGHT:
LEDs emit no ultraviolet radiation or heat into the illuminated area that can cause damage to sensitive objects or fabrics

LIFETIME:
LEDs can have a relatively long life. Fluorescent tubes typically are rated at about 10,000 to 15,000 hours, depending partly on the conditions of use, and halogen lamps at 2,000 - 4,000 hours.

SHOCK RESISTANCE:
LEDs, being solid state components, are difficult to damage with external shock, unlike fluorescent and halogen bulbs which are fragile.

GO GREEN!:
LED's do not contain mercury and other rare earths.



LED Strip Lighting

LED STRIP LIGHTING

Extruded Aluminium Channels With Diffusers for LED Strips

NEW 2013

Note: LED strip not included

Designed to house and diffuse the light from LED strips, and adaptable to many different applications. There is a standard aluminium channel, a corner mount channel for mounting in corners and firing the LEDs at 45˚, and a 2-piece channel for keeping all mounting screws and wiring completely hidden. Each unit comes with frosted opaque and solid white diffusers, as well as channel end caps to seal the LED strip inside safely and plastic mounting clips (not included in HH-8549).

EXTRUDED ALUMINIUM CHANNEL WITH DIFFUSERS FOR LED STRIPS
• Dimensions: 1000(L) x 17.3(W) x 15(H)mm
HH-8547

ALUMINIUM EXTRUSION FOR CORNER MOUNTING LED STRIPS
• Dimensions: 1000(L) x 25(W) x 25(D)mm
HH-8548

TECH TIP!
Suits the following LED strips: ZD-0461, ZD-0575, ZD-0570, ZD-0579 ZD-0550, ZD-0577, ZD-0572

EXTRUDED 2-PIECE HIDDEN MOUNTING ALUMINIUM CHANNEL WITH DIFFUSERS FOR LED STRIPS
• Dimensions: 1000(L) x 19.8(W) x 19.7(H)mm
HH-8549

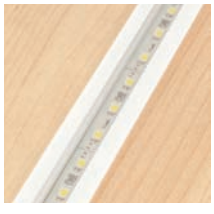
1 YEAR WARRANTY

	Length	Cat.	Qty 1+	Qty 10+	Qty 25+
Standard Channel	1 metre	HH-8547	$22.95	$20.35	$15.95
Corner Mounting	1 metre	HH-8548	$19.95	$17.70	$15.70
2 Piece Channel	1 metre	HH-8549	$29.95	$26.90	$20.70

Accessories to suit Superceded Extruded Aluminium Channel

HH-8535

HH-8536



HH-8540

NEW LOWER PRICE

HH-8541

HH-8542

	Cat.	Qty 1+	Qty 4+	Qty 10+
Diffuser Insert Strip Flanged Clear	HH-8540	$17.95	$15.95	$14.35
Diffuser Endcap (pack of 2)	HH-8541	$1.50	$1.35	$1.20
Clip Mount (pack of 2)	HH-8542	$1.25	$1.10	$0.97
Channel Endcap (pack of 2)	HH-8536	$1.95		

RGB LED Flexible Strip Lighting Kit with Effects

NEW 2013

An easy to setup RGB LED strip that can produce an array of dazzling effects. The device controls each bank of 3 x LED's individually to create effects that emulate flowing water, a shooting star, curtains opening, a colour gradient and more. Using the remote control you can switch all LEDs to white, red, green, blue, yellow, purple etc, adjust the brightness or set it up to cycle through all the different effects. Lighting applications include cinema foyers, nightclubs, casinos etc.

The kit includes a 5m reel of high brightness RGB LEDs with 3M adhesive backing, a power supply remote control, and a joiner to connect LED strips together.

Kit contains:
• 5m RGB LED lighting strip
• Infrared remote control
• Power supply
• LED strip joiner

1 YEAR WARRANTY

Specifications	
Input voltage	12VDC
5m reel contains	150 X RGB LEDs
Controller dimensions	94(L) x 58(W) x 25(H)mm

	Roll Length	Cat.	Qty 1+	Qty 3+	Qty 6+
	5 metres	SL-3954	$139.00	$124.95	$97.50

Low Cost 5m Flexible Adhesive LED Strip Lights

NEW 2013

When the absolute brightest light possible isn't what you are looking for, then these competitively priced flexible LED strips are what you are looking for. These strips still use the same super efficient 5050 SMD LED package as our ultra bright LED strips, but each LED has around 20-40% less light output that our ultra bright versions. Everything else is the same; there are 60 LEDs per metre, the flexible strip can be cut into sections every third LED to create separate strips to your desired length, the strip is backed with 3M brand adhesive tape, and each section had solder pads to enable you to wire up to your desired configuration. Sold as a full 5 metre reel in cool white and warm white colours, they are an excellent solution to thousands of lighting applications such as display cabinets, under bench lighting, accent lighting, caravan/camping, 4WD, mood lighting, etc. Two versions available.

ZD-0575

Specifications	ZD-0575	ZD-0577
Voltage	12VDC	12VDC
Colour	Cool white	Warm white
Current per section	55mA	55mA
Current per metre	1100mA	1100mA
Lumens per metre	570lm	570lm

	Price per	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	5m Roll	ZD-0575	$69.95	$62.95	$55.95
Warm White	5m roll	ZD-0577	$69.95	$62.95	$55.95

Ultra Bright Flexible Adhesive LED Strip Lights

These flexible adhesive LED strips are made using the highest brightness 5060-SMD type LEDs, and feature 60 of these LEDs per metre of stripping. Each strip comes as a 5m length, which can be broken down into individual 5cm sections with 3x LEDs that can be individually soldered to apply power. We understand that not all applications require a full 5m length, so we cut them to length and sell by the 5cm section, so that you can get the exact length you require. The strip itself is a flexible circuit board, backed with quality 3M brand adhesive tape to ensure a long term adhesion to your mounting surface. Powered by 12VDC. Two types available:

Note: Compatible with our Aluminium Channel System HH-8547, HH-8548 & HH-8549

ZD-0570

Specifications	ZD-0570	ZD-0572
Voltage	12VDC	12VDC
Colour	Cool white	Warm White
Current per section	55mA	55mA
Current per metre	1100mA	1100mA
Lumens per metre	960	960
LEDs per section	3 x 5060	3 x 5060
Sections per metre	20	20
Dimension per section	50x10mm	50x10mm

	Price per	Cat.	Qty 1+	Qty 20+	Qty 100+
Cool White	50mm segment	ZD-0570	$2.95	$2.15	$1.45
Warm White	50mm segment	ZD-0572	$2.95	$2.15	$1.45

Flexible Adhesive LED Strips - Warm White

This LED is mounted on a flexible printed circuit board with no fuss, no mess 3M self-adhesive backing. Ideal for illuminated signs, window displays, cabinet lighting and other small lighting applications. Single colour versions feature 60x 3528-type LEDs per metre, and the RGB version features 30x 5060 type LEDs per metre. Each strip comes as a 5m length, which can be broken down into individual sections with 3x LEDs that can be individually soldered to apply power. We understand that not all applications require a full 5m length, so we cut them to length and sell by the section, so that you can get the exact length you require.

Close up of the LEDs

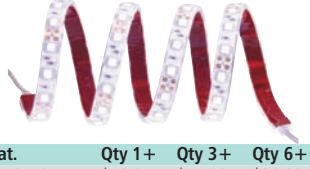
Specifications	
Voltage	12VDC
Colour	Warm White
Current per section	20mA
Current per metre	400mA
Lumens per metre	300
LEDs per Section	3 x 3528
Sections per metre	20
Dimensions per section	50x8mm

Price per 50mm

	Colour	Price per	Cat.	Qty 1+	Qty 20+	Qty 100+
	3 x Warm White	50mm segment	ZD-0487	$1.95	$1.45	$1.00

Ultra Bright IP67 Waterproof LED Flexible Strip Light

A 1 metre long fully waterproof, flexible LED strip light that is perfect for any outdoor application needing some bright, reliable lighting. This flexible strip light uses 60 of the highest brightness 5060-SMD type LEDs that are fully sheathed in a protective plastic casing to protect from water, dust and damage. Each also features waterproof male/female connections at each end to ensure that your power connection is also protected from the elements, and at the same time allows multiple strips to be daisy-chained together to create a longer length (up to 5m max). Powered by 12VDC.



Specifications	
Voltage	12VDC
Colour	Cool white
Current	1100mA
Lumens	960
LEDs	60x 5060-SMD type
Dimensions	1000(L) x 10(W)mm

	Length	Cat.	Qty 1+	Qty 3+	Qty 6+
	1 metre	ZD-0579	$49.95	$44.90	$39.90

LED STRIP LIGHTING (CONTINUED)

Linkable Aluminium LED Strip Lighting

A stylish aluminium LED strip light. Suitable for caravan, marine, 4WD, auto and domestic applications. Connect multiple lights together with the include connector to match your desired length. Screw mounting holes provided on the ends for easy installation.

- Works on 12V and 24V systems
- 3528 SMD LEDs (42 pieces)

Specifications	
Input voltage	9 - 30VDC
Lumens	280
Light Output	90°
Power Consumption	3W
Colour Temperature	Cool white 5500K
Dimensions	300(L) x 20(W) x 9(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Cool White	ST-3918	$29.95	$26.90	$23.70

36 LED Light Strip with Switch

NEW 2013

A quick and easy LED strip lights solution. The LED strip is pre-assembled in the channel diffuser with an integrated switch encased in attractive anodized aluminium alloy. They feature a generous beam angle with evenly distributed light thanks to the frosted white diffuser. Great for use on window displays, restaurant foyers, showrooms, hotels, and caravan or RV applications. Mounting clips are included for fast and easy installation.

36 LED LIGHT STRIP WITH SWITCH

- 12VDC powered
- 36 x 3528 SMD LEDs
- Mounting clips included

Cat. ST-3916

Specifications	
Input voltage	12VDC
Lumen Output	220
Power Consumption	3W
Colour Temperature	6000-6500K
Dimensions	303(L) x 20(W) x 14(H)mm

60 LED LIGHT STRIP WITH SWITCH

1 YEAR WARRANTY

- 12VDC powered
- 60 x 3528 SMD LEDs
- Mounting clips included

Cat. ST-3917

Specifications	
Input voltage	12VDC
Lumen Output	360
Power Consumption	3W
Colour Temperature	6000-6500K
Dimensions	505(L) x 20(W) x 14(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
36 LED	ST-3916	$24.95	$22.35	$19.70
60 LED	ST-3917	$34.95	$31.45	$27.90

TECH TIP

STRIP LIGHTING

Our range of LED strip lights are made using some of the most common type of SMD LEDs used in LED lighting products; the 3528 type, and the 5050/5060 type. Their model designations actually come from their footprint dimensions: 3528 = 3.5x2.8mm, 5050 = 5.0x5.0mm, and 5060 = 5.0x6.0mm. The 3528 type is a single LED emitter type in a very compact package, whereas the 5050 and 5060 type are commonly referred to as "triple-chip" due to having three LED emitters built into the one package. The 3528 typically offers superior lumen performance per emitter and greater light efficiency than 5050/5060, but the 5060/5060 triple-chip types are more cost effective due to lower manufacturing costs and reduced production costs when built into a finished product.

FLUORESCENT ADAPTORS

IP65 LED Lighting Module Strings

NEW 2013

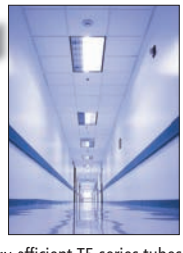
A very flexible and weatherproof (IP65) solution for low power lighting; use for backlighting of signs, illuminating stairwells, marine lighting, caravan lighting, etc. Each string is supplied as a 1m length of wire, with ten "modules" containing three high brightness SMD LEDs along the length of the string. You can cut the string to supply power to each module separately if you wish, allowing for a whole host of different applications. Simply provide 12VDC power and you are in business. Available in standard 3528-LED or ultra-bright 5050-LED versions, and in cool white, warm white or blue colours depending on the model you choose.

	ZD-0590	ZD-0592	ZD-0593
Voltage	12VDC	12VDC	12VDC
Colour	Cool White	Warm white	Blue
Current	300mA Total	300mA Total	200mA Total
Lumen output	13.5/135 total	13.5/135 total	5.1/51 total
LEDs	10x (3x3528)	10x (3x3528)	10x (3x3528)
Light angle	120°	120°	120°
Dimensions	71x15x5.5mm	71x15x5.5mm	71x15x5.5mm

	ZD-0594	ZD-0596
Voltage	12VDC	12VDC
Colour	Cool White	Warm white
Current	600mA Total	600mA Total
Lumen output	50/500 total	340/400 total
LEDs	10x (3x5050)	10x (3x5050)
Light angle	120°	120°
Dimensions	83x17x6mm	83x17x6mm

	LEDs	Colour	Cat.	Qty 1+	Qty 10+	Qty 25+
	3x3528	Cool White	ZD-0590	$19.95	$17.70	$13.70
	3x3528	Warm White	ZD-0592	$19.95	$17.70	$13.70
	3x3528	Blue	ZD-0593	$19.95	$17.70	$13.70
	3x5050	Cool White	ZD-0594	$29.95	$26.90	$20.70
	3x5050	Warm White	ZD-0596	$29.95	$26.90	$20.70

Fluorescent Tube Adaptors T5-T8



Easily convert traditional T8 fluorescent lighting to more energy efficient T5 series tubes using these tube adaptor sets. T5 tubes output the same light level as standard T8 tubes while consuming up to 40% less power. By comparison, LED replacements for fluorescent lights use similar power, and/or produce less light, and cost SEVERAL times more.

While many LED lighting options are available, we have specifically rejected LED fluoro replacements and chosen to sell these converters due to price, convenience and safety. Many LED tubes are known fail prematurely, with the electronics being poor quality, and the LEDs themselves being irregular in colour. Currently there are no mandatory electrical safety requirements for LED fluoro tube replacements and many common LED tube varieties pose a real electrocution hazard! By contrast T5 tubes are reliable and readily available in a brand name at a low cost, and are very safe; with these T8-T5 adaptors being approved by electrical safety standards. Lets not also forget the frightfully high cost of LED fluoro replacement tubes!

With T8 tubes commonly found in large area lighting systems for offices, schools, small businesses and warehouses the savings achieved using these adaptors adds up very quickly.

Installation couldn't be more simple - just remove the old T8 tube and starter, replace with the supplied starter-fuse, attach the two adaptor ends to your new T5 tube, install as per usual, and enjoy the power savings!

NOTE: Not suitable in T8 fittings with electronic ballasts.

Two models available:
SL-2746 for replacing 20W 590mm (2ft) T8 tubes with 14W T5 tubes
SL-2748 for replacing 40W 1200mm (4ft) T8 tubes with 28W T5 tubes

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Replaces 20W Tubes	SL-2746	$17.95	$15.95	$14.35
Replaces 40W Tubes	SL-2748	$19.95	$17.70	$15.70

Replacement Globes

Viribright 18W PAR38 Outdoor LED Spotlight Globes

VIRIBRIGHT The bright side of light

NEW 2013

Finally an energy efficient alternative to power hungry outdoor halogen spotlights, that doesn't take several minutes to "warm up" like a compact fluoro! Using just 18W of power, and producing over 1,300 lumens of light, these globes are a DIRECT replacement for the 150W halogen globes found in outdoor spotlights and driveway sensor lights. IP55 rated, and available in warm or natural white colour temperatures, with an E27 Edison screw base.

2 YEAR WARRANTY

Specifications	Power	Lumens	Colour	Base	Beam spread	Colour temp.	Equivalent traditional globe
SL-2225	18W	1300	Warm white	Screw	90°	2800K	150W
SL-2227	18W	1400	Natural white	Screw	90°	4000K	150W

Colour	Lumens	Cat.	Qty 1+	Qty 3+	Qty 6+
Warm White	1300	SL-2225	$49.95	$44.90	$39.90
Cool White	1400	SL-2227	$49.95	$44.90	$39.90

Incandescent Replacement Light Globes

In its hasty ban of standard filament type light globes with so-called energy saving ones, the government forgot about dimability. Standard energy saving globes won't work with light dimmers! The globes shown below are legal and provide the standard resistive load for light dimmers. They also provide a much softer light. Available in Bayonet or Edison Screw.

- 42W is 60W equivalent
- 70W is 100W equivalent
- Most importantly they behave just the way standard globes did with dimmers
- Sizes for most domestic uses:

42W EDISON SCREW
Pkt 2 Cat SL-2795
42W BAYONET
Pkt 2 Cat SL-2796
70W EDISON SCREW
Pkt 2 Cat SL-2797
70W BAYONET
Pkt 2 Cat SL-2798

Packs of 2 globes

			Cat.	Qty 1+
42W	Edison Screw	Pkt 2	SL-2795	$2.45
42W	Bayonet	Pkt 2	SL-2796	$2.45
70W	Edison Screw	Pkt 2	SL-2797	$2.45
70W	Bayonet	Pkt 2	SL-2798	$2.45

GLOBE HOLDERS

Batten Globe Holder

A batten holder that is easy to fit. Unit comes apart for easy mounting. The cable screw connectors are easy to get to and are at a right angle. Supplied with plaster board mounting plugs also. A much improved batton holder.

- Accepts standard BC globes.

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-4070	$7.95	$6.95	$6.25

Base

Base to suit both 35mm and 50mm lamps.

- Size 17(Dia.) x 9(H)mm.
- Cable length 120mm.
- Rating 100W 25V.

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-2735	$4.95	$4.45	$3.90

50mm Halogen Downlight Holder

Install your own halogen lamps in the ceiling with this holder. Simply drill a hole and this fitting pushes in and is held with clips. The halogen globe then pushes into the holder.

- Colour is white, complete with lamp base.
- For 51mm. Approx cutout is 60-65mm.
- Dimensions - total width at front 75mm. Depth 55mm.

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-2738	$6.95	$6.25	$5.50

50mm Adjustable Halogen Downlight Holder

NEW LOWER PRICE

Install your own professional halogen lighting system anywhere you like. The globe holder is finished in high gloss white and will pivot up to 40° angle which is enough to highlight say, a picture on a wall.

- Approx. cutout is 90mm.
- Dimensions - Total width at front is 102mm and the depth is 39mm.

This holder suits all of our 51mm 12V halogen lamps.

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-2739	$7.95	$6.95	$6.25

HALOGEN GLOBES

6V 55W Halogen Globe

Replacement globe to suit our ST-3300 halogen spotlights.

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-3221	$5.95	$5.25	$4.75

12V 5W Halogen Globe

- 12V @ 5W.
- 4mm pin spacing.
- 8mm pin length
- Total length: 30mm
- Bulb dia: 8mm
- Pkt 2

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-3216	$5.95	$5.25	$4.75

12V 10W Halogen Globe

Halogen globe for illuminated fogger.

- 12V, 10 watts
- 4mm pin spacing.
- Pin length: 8mm
- Total length: 30mm.
- Bulb dia: 8mm
- Pkt 2

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-3217	$5.95	$5.25	$4.75

12V 50W Halogen Globe

Same as 100W unit below, but this one is 50W.

Cat.	Qty 1+	Qty 10+	Qty 25+
12V 50W SL-2726	$5.95	$5.25	$4.75

12V 100W Halogen Globe

These are used in hand held spotlights.

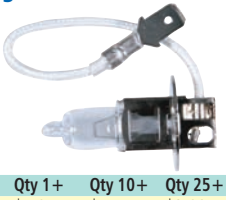
- Fitting and contact is by 2 pins which are 6mm apart.
- Length including pins is 40mm.

Cat.	Qty 1+	Qty 10+	Qty 25+
12V 100W SL-2724	$4.95	$4.45	$3.90

12V 100W Halogen Globe

Replacement globe for halogen spotlight.

CRAZY CLEARANCE



Cat.	Qty 1+	Qty 10+	Qty 25+
SL-3222	$4.95	$4.45	$3.90

12V JC Halogen Globe

2 pin halogen globes.

- As used in some models of our garden lighting.
- Fitting and contact is by 2 pins, 22mm long, pin spacing: 3mm, 8mm dia, 8mm pins.

Cat.	Qty 1+	Qty 10+	Qty 25+
12V 20W SL-2722	$3.95	$3.45	$3.15

32V 150W Halogen Swimming Pool Light

CRAZY CLEARANCE

Suits stroud type pool lights.

Cat.	Qty 1+	Qty 10+	Qty 25+
SL-2725	$4.95	$4.45	$3.90

TECH TIP!

HANDLING HALOGEN GLOBES

Due to the high temperature of the halogen globes the glass envelope can crack unless it is very clean. If you leave grease or fingerprints on the globe, clean the glass with methylated spirits (preferably) before using.

Tip. Do it whether you've touched them or not!

NEONS

90V NE2 Neon

Would you believe it? After about 100 years of orangey-red neons we now can get blue and green ones! You'll buy one out of curiousity!

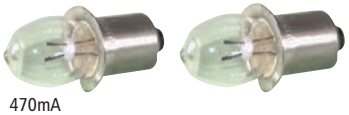
- Strike voltage: 82V
- Needs 270k resistor in series for 240V operation.

	Cat.	Qty 1+	Qty 10+	Qty 25+
Orange/Red	SL-2690	$0.90	$0.80	$0.70
Blue	SL-2695	$0.90	$0.80	$0.70
Green	SL-2696	$0.90	$0.80	$0.70

TORCH GLOBES

Krypton globes give up to 70% more light output compared to standard globes.

Flange Type Krypton Torch Globes



2.2V 470mA
- Suitable for 2 x AA batteries — Cat. SL-3200

2.4V 520mA
- Suitable for 2 x C batteries — Cat. SL-3202

2.4V 700mA
- Suitable for 2 x D batteries — Cat. SL-3204

2.4V 700mA
- Suitable for 3 x D batteries — Cat. SL-3206

4.8V 750mA
- Suitable for 4 x D batteries / Lantern — Cat. SL-3208

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 2	All Types	$2.95	$2.60	$2.30

2.5V Krypton Torch Globe - Edison Screw

- 300mA
- Suitable for 2 x 1.5V batteries

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 2	SL-3210	$2.65	$2.30	$2.07

4.8V Krypton Torch Globe - Edison Screw

- 300mA

	Cat.	Qty 1+	Qty 10+	Qty 25+
Each	SL-3211	$1.95	$1.75	$1.55

3V 2W Torch Globe

- Edison screw
- 17.5mm overall length
- 4.7mm diameter
- 8.5mm globe length

	Cat.	Qty 1+	Qty 10+	Qty 25+
Pkt 2	ST-3002	$3.95	$3.45	$3.15

XENON

Xenon Globe for SL-2999

Spare globe for 75W Strobe Light SL-2999

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2693	$12.95	$11.35	$10.35

Xenon Flash Tube

As used in strobe kits.
Use Cat. MM-2520 trigger transformer shown on the left

Operating voltage:
Minimum = 250VDC
Nominal = 300VDC
Maximum = 400VDC

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2692	$5.50	$4.90	$4.30

TECH TIP!

USB Plamsa Ball (GE-4089) can be used to safely check globe colour. The globe will light up near the Plasma Ball.

Transformer - Strobe Trigger

Used to trigger small XENON discharge lamps such as our Cat. SL-2692.

NEW LOWER PRICE

- Dimensions: 10mm x 7mm dia.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	MM-2520	$1.95	$1.75	$1.55

GLOBES & HOLDERS

Illuminated Doorbell Globe

Replacement globe for our doorbell SP-0782 switch, can be used as a replacement for other brand doorbells.

- Length 27mm.
- Globe is 12V, but will work on lower voltages.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2720	$1.95	$1.75	$1.55

12V 5W Courtesy Lamp

Replacement globe to suit our ST-3016 Lamp.

- Length 30mm
- Dia. 8mm

	Cat.	Qty 1+	Qty 10+	Qty 25+
	ST-3018	$1.95	$1.75	$1.55

12V Switch Globe

As used in our illuminated pushbutton switches Cat. SP-0742/50/52/53

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2635	$5.95	$5.25	$4.75

14V Car Alarm Switch Replacement Globes

Replacement globes for flashing switches / bezels for car alarms.

- BI - pin
- TI
- 2.54 lead spacing
- 14 volt.

	Cat.	Qty 1+	Qty 10+	Qty 25+
	SL-2636	$3.85	$3.45	$2.95

Mini Lamps

A large range of various sizes and voltages of mini lamps.
- Supplied with wiring cable pre connected.

Large Size	Volts	Cat.	Wire Colour
Globe size - 4(Ø) x 10mm	1.5	SL-2670	White
PVC lead length - 150mm	3	SL-2671	Red
Current - 0.1A	6	SL-2673	Blue
	9	SL-2674	Green
	12	SL-2675	Yellow

Small Size	Volts	Cat.	Wire Colour
Globe size - 3(Ø) x 7mm	1.5	SL-2680	White
PVC lead length - 100mm	3	SL-2681	Red
Current - 0.1A	6	SL-2683	Blue
	9	SL-2684	Green
Qty prices for one type only	12	SL-2685	Yellow

	Cat.	Qty 1+	Qty 5+	Qty 10+
	All Types Each	$1.30	$1.15	$1.01

Lilliput Globes

- Total length 17mm.
- Width 4.5mm.
- Glass length 8mm.

	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
6.3V	200mA	SL-2650	$0.95	$0.85	$0.75
12V	120mA	SL-2652	$0.95	$0.85	$0.75

Miniature Edison Screw Globes

- Total length 27mm.
- Width 9mm.
- Glass length 14mm.

	Current	Cat.	Qty 1+	Qty 10+	Qty 25+
6.3V	250mA	SL-2654	$0.85	$0.75	$0.65
12V	100mA	SL-2656	$0.85	$0.75	$0.65

Globe Holder

Standard MES globe holder.

- Suits SL-2654/6 above.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	SL-2658	$0.95	$0.85	$0.75

Bakelite Globe Holder

High quality MES globe holder with a round bakelite base.

- Wires are attached to the socket by screws.
- No soldering required.
- Holder can easily be screwed to a base plate.
- Diameter 33mm
- Height 19mm.
- Suits SL-2654/6 above.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	SL-2659	$2.95	$2.60	$2.30

E14 12VDC Socket - (SES)

Suits E14 small Edison screw fluoro globes. Rated for 12VDC, suits compact fluoro SL-2850

- Base size: 40(Dia) x 42(H)mm
- Mounting holes 30mm apart.

TECH TIP!

Not suitable for 240V

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4072	$4.95	$4.45	$3.90

Batten Globe Holder

A batten holder that is easy to fit. Unit comes apart for easy mounting. The cable screw connectors are easy to get to and are at a right angle. Supplied with plaster board mounting plugs also. A much improved batton holder.

- Accepts standard BC globes.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4070	$7.95	$6.95	$6.25

GU10 Base Socket

Socket and base for GU10 downlights.

- 150mm flying lead with terminal block.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-4076	$7.95	$6.95	$6.25

Garden Lighting & LED Candles

GARDEN LIGHTING

IP67 LED Landscape Spotlights

Add some luminescence to your outdoor or aquatic landscape. These lights are IP67 rated for complete protection against the weather, and are extremely robust so will last many years. They can even be mounted in a water feature or rock pool. Being LED, they use very little power and will last for thousands of hours. Each can be mounted on a surface with the included stand, or on the stout spike and thrust into the ground in a convenient location. Each has a 5m length of cable and extension cables are available. 1W or 3W types.

- Provides natural-looking light
- Energy efficient

1W IP67 LED GARDEN SPOTLIGHT Cat SL-2755
- Equivalent to a 10 Watt halogen light
- Size: 70(L) x 30(Dia)mm

3 X 1W IP67 LED GARDEN SPOTLIGHT Cat SL-2756
- Equivalent to a 20 Watt halogen light
- Size: 86(L) x 62(Dia)mm

POWER SUPPLY 12VAC 12W Cat SL-2757

POWER SUPPLY 12VAC 24W Cat SL-2754

EXTENSION CABLE 5M SCREW LOCK Cat SL-2759

CABLE SPLITTER Cat SL-2753

	Cat.	Qty 1+	Qty 5+	Qty 10+
1 Watt LED Garden Light	SL-2755	$19.95	$17.70	$15.70
Power Supply - 12VAC 12W	SL-2757	$14.95	$13.35	$11.70
Extension Cable - 5 metre	SL-2759	$9.95	$8.75	$7.75
Cable Splitter	SL-2753	$12.95	$11.35	$10.35
3 x 1 Watt LED Garden Lights	SL-2756	$49.95	$44.90	$39.90
Power Supply - 12VAC 24W	SL-2754	$24.95	$22.35	$19.70

Solar Rechargeable In-Ground LED Lights

Light up your path, garden, patio or any other outdoor area. Simply set into the ground and leave the sun to do its thing - they automatically recharge and come on when darkness descends. Ideal for safety, security or accent lighting. Stainless steel fascia.

- Robust aluminium construction
- Size: 140(W) x 48(H)mm
- No wiring, easy installation

Each	Cat.	Qty 1+	Qty 2+	Qty 4+
	SL-2751	$29.95	$26.90	$23.70

Waterproof LEDs with 4.5m Cable

A pair of robust LED spotlights with a pre-attached 4.5m power cable. They're both waterproof so are ideal for installation in the garden to light up walkways, water features, or general garden ambience. They require a 12VDC power source so could also be adapted to automotive applications such as caravan lighting. Both models feature a threaded copper with chromium plated casing allowing them to be installed flush with a wall or footpath (may require the use of a hole saw).

Specifications	SL-2747	SL-2749
Power consumption	1W	3W
LED(s)	1	1
Power per LED	1W	3W
Brightness	85 lumens	150 lumens
Colour	3300K	3300K
Input voltage	12VDC	12VDC
Lens angle	45°	120°
Dimensions	37(Dia) x 41(D)mm	50(Dia) x 38(H)mm
Cable length	4.5m	4.5m
Rated	IP68	IP68

Each	Cat.	Qty 1+	Qty 5+	Qty 10+
1W	SL-2747	$19.95	$17.70	$15.70
3W	SL-2749	$29.95	$26.90	$23.70

LED CANDLE SETS

Solar Rechargeable LED Candle

An ideal lighting solution for your next BBQ dinner or family gathering. Never worry about the mess and fuss of candle wax again. Simply turn it upside down to charge from the sun through a solar panel integrated in the bottom and when darkness falls, turn them over again and the LED candle will automatically come on. A fantastic idea for restaurants and outdoor entertainment areas.

- No batteries required
- Long lasting
- Dimensions:
  Candle - 92mm tall

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3925	$14.95	$13.35	$11.70

LED Tealight Candle Set of 12

Conventional candles are potentially hazardous in the family home. Today's technology has allowed us to experience a safe and convenient tealight without the smoke or messy wax. Battery operated & simple to use, these lights flicker just like real candles. Ideal for any table, shelves, bedrooms, bathrooms or patios. Comes in a set of 12 individual candles.

- Batteries included
- Long life LED

	Cat.	Qty 1+	Qty 3+	Qty 6+
Set of 12	ST-3921	$14.95	$13.35	$11.70

3 Piece Flameless LED Candle Set

Who needs conventional candles, when you can experience the safe and convenient LED light technology with this 3 piece Flameless LED Candle set. Featuring a soft yellow glow that flickers just like a conventional candle would. This is also made from real wax in which is nearly indistinguishable from a flamed candles. The candle sets also comes with a remote control to switch them on or off from a distance. This will make a nice set for the lounge room, dining table or even the bedroom.

- 3 Piece LED candles
- Infrared Remote
- Flameless Technology
- 9 x AAA batteries required

NOTE!
Real Wax!

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
ST-3927	$24.95	$22.35	$19.70

Baby Owl

Makers Name: Rob Simic
Location: New South Wales

Our daughter loves owls, so I made an owl's face out of an arrangement of LEDs, which connects to an AC timer, which we set to turn the owl on (wake up) at the time we'd like our daughter to stay in bed. The idea being that if our daughter wakes up early, she stays in bed and waits for the owl to also wake up.

For more details scan the QR code or go to www.jaycar.com.au/makers

NIGHT LIGHTS

LED Night Light with Sensor

No need to trip over the cat or stub your toe when you need to get up in the middle of the night. Keep one of these plugged in and it will give you enough light to see where you're going. Being LED, it uses very little power, so you can leave it on permanently. The built-in sensor turns the light off whenever the room lights are switched on.

- Ideal for kids room, hallways and closets
- Rotates through 360° to light any direction
- No batteries required
- Durable construction
- Unobtrusive size - smaller than a double adaptor
- Dimensions: 50(Dia) x 50(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3181	$9.95	$8.75	$7.75

Double Adaptor with Night Light

Leave a night light on for the kids without wasting a power point. When the lights go out, the light comes on so you can find your way to the little room or the kitchen for a midnight snack and it only uses a tiny 0.2W so it won't send the power bill through the roof. It can be left in place and you still have use of the power outlet.

- Light-sensitive
- Dimensions: 88(H) x 44(W) x 33(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PP-4039	$9.95	$8.75	$7.75

3 in 1 Motion Sensor Light

Use it as a torch, a spotlight or as a motion sensor light! The torch/spotlight mode has a continuous run time where the motion sensor detects movement which then activates the lighting. You also have the option of angling the motion sensor and light to your requirements. It will switch on instantly after detecting motion and illuminate the area for either 30 or 60 seconds. It is compact enough to be mounted on any surface and has motion sensitivity of up to 5m. A great idea for areas such as your kitchen cupboards or pantry, sheds, hallways or even your letterbox! Mounting bracket and hardware included.

NEW LOWER PRICE

- Eco-friendly - using LED & motion sensor
- Requires 2 x AA batteries
- Dimensions:106(L) x 92(H) x 33(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3203	$14.95	$13.35	$11.70

Night Light With LED Torch

A product that smartly combines a night light and a 6 LED powered torch. The night light should be plugged into a vertical mains outlet with the torch docked in the induction charging cradle. The beauty of induction charging means you can quickly whip the torch out without unplugging, disengaging or switching anything on or off. When you remove the torch from the dock it automatically switches on (you can manually switch it off or enable flashing mode as well). The night light base emits a soft but adequate white glow and has 3 modes of operation. The ON mode will keep the night light at the full setting at all times. The OFF mode is self explanatory and the auto mode will adjust the night lights lumen power depending on the surrounding light.

- Torch dimensions: 143(H) x 40(W)mm
- Night light dimensions: 78(L) x 60(W) x 62(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3141	$19.95	$17.70	$15.70

Motion Activated Sensor Light with LED

Multi purpose LED light with built-in infrared sensor designed to turn on automatically for 25 seconds when the PIR sensor detects movement (up to 4 metres away). Mount it to a suitable wall with the adjustable bracket & screws provided. You can also detach the light to double as a portable LED torch.

- 3 modes
- 3 x ultra-bright white LED
- Infra-red sensor
- Requires 3 x AA batteries
- Dimensions: 193(L) x 40(W)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3461	$14.95	$13.35	$11.70

BOOK LIGHT

Book Light with 2 Mode Operation

Designed to be portable and practical! This book light will give you more than enough light to read in bed but won't disturb your sleeping partner. The light has two brightness levels and uses a super bright 0.5W LED to fill your page with light and make reading a breeze. The slender design with its flexible gooseneck means you can position it any way required and makes a good companion on an overnight train or plane trip.

- On/Off switch with dimmer
- Requires 1 x AAA battery (not included)
- Size 40(W) x 105(L) x 10(D)mm
- Gooseneck length: 250mm long

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-3205	$9.95	$8.75	$7.75

TABLE LAMPS

LED Table Lamp and Work Light

NEW 2013

This sleek modern LED table lamp not only looks great but lasts up to 40 times longer than its incandescent rivals. The light produced by the LEDs has a rendering index of 90+ (CRI) making it akin to sunlight. Flicker free, this helps to minimise the strain on your eyes as you read at night or work on fine hobby projects. The touch sensitive buttons allow you to control power and colour temperature so you can set it to a very bright white light or a warm white colour. The LED arm can be folded and rotated around a wide range of directions and can also be completely detached from the base so you can use it as a work light. A brilliant feature adding great versatility.

- Colour Temperature: 3500-5500K
- Power: 9W
- Illumination: 100-500 Lumens
- Luminous Intensity: >600Lux
- Lamp holder arm: 340° swivel
- Base 360° swivel
- Dimensions:
  Light Arm (folded): 345(L)mm
  Light Arm (extended): 665(H)mm
  Base: 199(Dia.) x 16(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
500 Lumens	SL-3139	$84.95	$76.50	$67.95

RELATED PRODUCT...
See page 262 for our range of 12V Ceiling Lights

Home Automation

HOME AUTOMATION

This is a term where digital technology is used to simplify or integrate aspects of home management. Most home automation is designed to combine previously separate tasks into a central command & control workstation, typically a touch screen or even just a keypad. A PC can also form part of such a system.

Typical tasks that home automation can integrate are: interior & exterior lighting, air conditioning, audio & video feeds, telephone management, along with integration of home security including keyless entry, etc.

Previously home automation was limited to large expensive homes. Up until now home automation components were hard wired inside walls using Cat5-type cabling.

It is now possible to achieve the same thing without expensive & disruptive cabling using high security, high reliability wireless technology.

We are proud to be the pioneer of Home Automation-in-a-box technology.

Typical ZigBee Wireless Home Automation System Map

Wireless Gateway - Home Automation Controller

- Have you ever dreamt of controlling your homes lighting and appliances remotely?
- Have you ever wanted to turn your homes lights and appliances off and activate your security system with the touch of one button?
- Have you ever been on holidays and wanted to check on your home via video and be updated via Email of any events?

SECURITY ALARM FUNCTION

- Real Time / Emergency Notifications Via Email
- Home Automation Control Timers, scene control, remote operation
- Video Surveillance IP cameras support for live video monitoring
- Cost Effective True wireless connectivity
- Easy Installation DIY simple installation.

TECH TIP!

Control using your iPhone® or android smartphone

SECURITY

Fully secure your home with the LA-5570 Wireless Gateway. Featuring a wide range of wireless accessories such as door and window switches, PIR motion detectors and smoke detectors. You can easily build up a fully secure home environment to protect your home, family and property. Use either the wireless digital pulse input or the analogue input modules to connect a range of hard wired security sensors.

REAL TIME EVENT / EMERGENCY NOTIFICATION

The LA-5570 Wireless Gateway provides real time email notification allowing you to be immediately informed of an break in or panic notification.

AUTOMATION

Your LA-5570 Wireless Gateway is more than a fancy security system. It offers total control of your home appliances, lighting and power outlets. The LA-5570 can control your entire home allowing you to monitor and control appliances remotely via your Smartphone or web browser.

Have you ever forgotten to turn off the iron? Now you can simply pick up your phone and switch of the appliances off from anywhere in the world. Going on holidays? Your LA-5570 can turn on and off lighting at various times so that it appears someone is at home. When you are at home and want to sit down and enjoy a movie on the big screen, at the press of a button, the lights will dim, the popcorn machine turns on and the movie begins.

VIDEO SURVEILLANCE

Need to check on the dog? Make sure the teenagers are behaving while out to dinner? Through the Web user interface or you Smartphone you can easily monitor and control your IP cameras, allowing you to easily monitor live video footage of your home anytime anywhere.

COST EFFECTIVE

Most professional home automation systems require your home to be pre wired costing many thousands of dollars just for the install! But with the LA-5570 Wireless Gateway, it can offer you the same level of functionality and its all DIY! The system uses premium wireless technologies such as Wi-Fi, Zigbee and 3GPP mobile technologies to provide a very cost effective DIY solution.

EASY INSTALL

The system uses premium wireless technologies such as Wi-Fi, Zigbee and 3GPP mobile technologies connecting all the devices such as the door sensors, PIR movement detectors, smoke detectors, temperature monitor, plug in appliance switch all remotely without wires. Providing a very cost effective, DIY solution.

Wireless Specification Comparison

Feature	WiFi (802.11x)	Bluetooth®	UIS (ZigBee Pro)
Battery life	Several hours	Several days	1 year and above
Complexity	High complexity	Complex	Simple
Number of Nodes	32	7	20~300
Response time communication	3 seconds	10 seconds	30 milliseconds
Coverage	100m	10m	300m and above
Extension	Roaming enable	no	Yes
Data Rate	11Mbps	1Mbps	250kbps
Security	SSID	64-bit,128-bit	AES/128-bit
Address Type	48-bit (MAC-48)	48-bit (MAC-48)	64-bit

Due May/June

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
Wireless Gateway	LA-5570	$249.00	$225.00	$198.95

Wireless LCD Controller with PSU

The wireless remote keypad allows for complete configuration and programming the LA-5570 Wireless Gateway. Has the look and feel of a typical alarm keypad with the extra functionality of controlling your lighting appliances.

- Away Mode Full Arming for All Zones
- Stay Mode For Arming certain Zones for Night Mode
- Zone Bypass function
- Panic button Emergency Alarm Activation (Can send Email)
- Tamper switch Activates Alarm if removed from the wall when Armed
- Simple to use navigation menus
- Powered by 2x AA batteries and mains adaptor
- Simply mount on the wall with the supplied mounting plate
- Dimensions: 157(L) x 95(W) x 21.5(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5572	$169.00	$151.95	$134.95

Remote Control

Miniature and slim line 3 button key fob remote control for use with our range of Home Automation devices. Quickly arm and disarm sensors, turn on lights, open doors and also integrates a panic button for emergencies.

Buttons, arm, disarm and panic

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	CR2032
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	64(L) x 30(W) x 13(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5573	$44.95	$40.45	$35.90

Wireless Mains Controller

A 240VAC plug in mains controller that is able to remotely activate any mains appliances. Turn lights on and off, motors, heaters, etc wirelessly via the Gateway or remote control devices.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	230VAC 50Hz
Resistive Load	6.4A
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	88(L) x 52(W) x 39(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5578	$89.95	$80.95	$71.95

Wireless 12VDC Switch Controller

A 12VDC Controller switch suitable for use with Garage doors and door strikes. It can also be used for switching other devices with a 12V control input such as lamps, cameras, etc. It has a magnet on the rear which enables easy fixture to metal surfaces.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	12VDC
Current	20mA
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	88(L) x 39(W) x 15(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5580	$44.95	$40.45	$35.90

Wireless Temperature Sensor

This wireless temperature sensor has an operating temperature of 20 to 60 degree centigrade. Monitor the exact temperature in each room, garage and even the wine cellar. Unit incorporates minimum and maximum temperature threshold which allows for alarm or mains controller activation.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	CR2032
Temperature range	20 - 60° Celsius
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	100(D) x 43(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5586	$39.95	$35.90	$31.90

Wireless Digital Transducer

A nifty wireless transducer for digital input interface with our wireless home Automation system. This device enables you to connect existing digital sensors with normally open and normally closed contact such as PIR's, Reed Switches, Smoke and Gas detectors, etc already in your house hold and offices. Has a strong magnet on the rear of the unit for easy mounting on metal surfaces.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	CR2032
Detection	NO/NC contacts
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	79(L) x 39(W) x 15(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5588	$49.95	$44.90	$39.90

Wireless PIR Sensor

Our new range of Home Automation products also integrates alarm monitoring functionality. This Wireless PIR sensor further expands the capabilities of our Home Automation range by offering reliable motion detection. Like all PIR detectors, this unit detect infra-red radiation in 95 degree up to a distance of 5 metres. Uses 2 x AA batteries and has energy saving mode.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	2 x AA (not included)
Detection	Passive Infra-red
Communication range	100 metres
Protocol	2.4GHz UIS
Dimensions	92(L) x 34(W) x 34(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5582	$79.95	$71.95	$63.95

Wireless Magnetic Reed Switch

This compact wireless reed switch interfaces with our Home Automation system allowing entry protection from windows and doors. Supplied with a mounting bracket for the main wireless switch, the magnet screws onto door or window frames. Also has power saving mode which enables the battery to last up to 2 years.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	CR2032
Detection	Passive Infra-red
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	65(L) x 34(W) x 15(D)mm Main 70(L) x 12(W) x 15(D)mm Magnet

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5584	$49.95	$44.90	$39.90

Wireless Smoke Sensor with Siren

A complete wireless photoelectric smoke detector with a built in buzzer providing audible warning. A highly reliable sensor which provides a complete solution to fire prevention and safety. Supplied with mounting hardware for roof mounting. Powered by 2 x AA batteries and has power saving mode for 2 years of operation.

NEW 2013

1 YEAR WARRANTY

Specifications	
Power Supply	2 x AA (not included)
Detection	Passive Infrared
Communication range	100 metres
Protocol	2.4GHz UIS
Siren Output	90dB @ 1m
Battery life	2 years
Dimensions	100(D) x 43(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5587	$99.00	$88.95	$78.95

Wireless Siren

A 240V AC plug in siren designed to receive signals from our range of Home Automation sensors. Unit can interface with wireless PIR detectors, reed switches and smoke detectors. Has a sound output of 85dB and also an LED visual indication on the front panel.

NEW 2013

1 YEAR WARRANTY

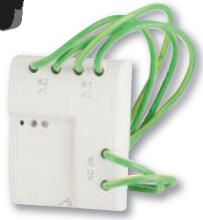
Specifications	
Power Supply	240VAC 50Hz
Sound Output	90dB @ 1 metre
Communication range	100 metres
Protocol	2.4GHz UIS
Battery life	2 years
Dimensions	88(L) x 52(W) x 39(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5576	$119.00	$106.95	$94.95

Wireless 240VAC Lighting Controller

Essentially a remote control relay that will allow control of up to two lights wirelessly. Plug it into a 230VAC source (or you can wire it in) then connect up to 2 lights and they can be remotely controlled. Not limited to lights, it could be used for switching any number of household devices.

NEW 2013



1 YEAR WARRANTY

Specifications	
Voltage	240V
Communication range	100 Metres
Protocol	2.4GHz UIS
Dimensions	132(L) x 67(W) x 27(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5575	$59.95	$53.95	$47.90

Home Automation

LOW COST HOME AUTOMATION

You do not have to spend tens of thousands of dollars to create a smart home. With our new low cost range of Wireless Home Automation and Alarm system, you can create a fully automated system and only spend a few hundred dollars.

Although very affordable, the system incorporates very powerful features:
-16 sector wireless alarm system
-16 sector wireless home automation devices
-Timer schedule programming
-Group programming
-Matrix (Scenes) programming
-100 Alarm event memory

Home Automation Main Controller

NEW 2013

A powerful controller with built-in 16 wireless alarm zones and 16 wireless home automation control. Easily interfaces with a wide range of wireless security devices such as a PIR motion detectors, magnetic reed switches, light sensors and remote key fobs to protect your home and property. It also controls home automation devices such as mains 240V switcher module, 12V switcher module, light dimmer controller module, infrared controller and a wireless external bell box.

With the built in timer schedule programming, you are able to turn device(s) on or off automatically. E.g. Turn your lights on with the LA-5594 240V mains controller; turn your television or air conditioner with the LA-5597 Infrared controller at a specific time of the day or night.

Group programming is a handy feature for day to day activities. This allows you to turn up to a 5 output devices at once. Imagine coming home from work and opening your garage with the LA-5155 key fob remote control and the lights to your garage and living room, the television and air conditioner all turn at the same time. All you have to do is sit in your favourite couch and enjoy that ice cold beverage.

The Matrix or Scenes programming is a very powerful feature. It enables you to program wireless sensors to turn home automation device controllers on or off. Program the LA-5157 infrared sensor to turn a light on when activated. Set your LA-5598 light sensor module to open your curtains in the morning. The possibilities are endless and are limited to your imagination.

Main controller comes with a 240VAC power adaptor with a provision for a 9V battery (not included) back for memory.

Specifications	
Voltage input	12VDC
Wireless Range	100m line of sight
Wireless Frequency	433MHz

Due June/July

1 YEAR WARRANTY

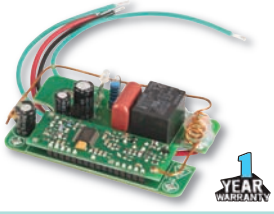
	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5592	$119.00	$106.95	$94.95

240VDC Mains Switch Controller Module to suit LA-5592 Home Automation Main Controller

NEW 2013

A compact wireless 240VAC Mains switch module to interface with our Home Automation Controller. Designed to be hard wired to your GPO, wall switches or other mains device, it enable you to remotely activate any mains appliances. Turn lights on and off, motors, heaters via the home automation main controller and input devices such as PIR, Reed Switch, key fob remotes and light sensors.

- Note: A licensed electrician is highly recommended to hard wire this device into 240V mains wiring.



Specifications	
Voltage input	240VDC
Output Signal	NO or NC
Maximum Load	5A @ 240V
Wireless Range	100m line of sight
Wireless Frequency	433MHz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5594	$39.95	$35.90	$31.90

12V DC Switch Controller Module to suit LA-5592 Home Automation Main Controller

NEW 2013

This controller module is good for switching 12V devices such as lamps, cameras, doors and garage. Control wireless via the LA-5592 Main Controller via Time schedule, manual and Matrix or pair with the LA-5155 Key Fob Remote Control for use as a wireless switch.

Specifications	
Voltage input	12VDC
Output Signal	NO or NC
Maximum Load	3A @ 14V/ 2A @ 24V
Wireless Range	100m line of sight
Wireless Frequency	433MHz

1 YEAR WARRANTY

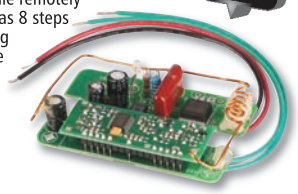
	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5595	$49.95	$44.90	$39.90

Simplicity and ease of use was in mind during the design; all sensors, controllers and switch modules are all wireless operating reliably on 433MHz frequency at a maximum range of 100m (line of sight). The main controller uses a very simple rotary switch for sensor and controller programming; very similar to what you see in expensive European systems, making system programming a breeze.

240V Mains Light Dimmer Module to suit LA-5592 Home Automation Main Controller

NEW 2013

This compact 240V Mains Light Dimmer module remotely controls the intensity of your 240V lamps. It has 8 steps of light dimming, perfect for light mood setting when entertaining guests. Unit is only suitable for incandescent type bulbs.



- Note: A licensed electrician is highly recommended to hard wire this device into 240V mains wiring.

Specifications	
Voltage input	240VDC
Maximum Load	5A @ 240V
Wireless Range	100m line of sight
Wireless Frequency	433MHz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5596	$39.95	$35.90	$31.90

Wireless Infrared Controller to suit LA-5592 Home Automation Main Controller

NEW 2013

A learning infrared controller designed to mount on the roof to directly control your household appliances. It will learn your appliances infrared remote command and repeat when matched with a home automation input device. Turn on or off your air conditioner and television; open your curtains, etc. The infrared LED's are clustered in a 360 degree formation and will operate devices up to 150m2 in size. Unit is supplied with a mains power supply.

Specifications	
Voltage input	12VDC
Wireless Range:	100m line of sight
Wireless Frequency	433MHz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5597	$79.95	$71.95	$63.95

Wireless Light Sensor Module to suit LA-5592 Home Automation Main Controller

NEW 2013

This light sensor module will interface with the Home Automation system to turn an output device on or off. It has an adjustable light setting to detect the desired ambient light trigger. You can interface this with a 240V mains controller to turn a light on at dusk or a 12V controller to open the curtains at the first sign of light.

Specifications	
Voltage input	12VDC
Wireless Range	100m line of sight
Wireless Frequency	433MHz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5598	$34.95	$31.45	$27.90

Wireless Bell Box to suit LA-5592 Home Automation Main Controller

NEW 2013

A wireless bell box designed to interface with the LA-5592 Home Automation Controller. Works as an audible and visual deterrent, the siren produces a wailing 94dB of output and a powerful strobe when alarm is activated. It is supplied with 240V AC mains power adaptor.

Specifications	
Voltage input	12VDC 20mA
Wireless Range	100m line of sight
Wireless Frequency	433MHz
Sound Output	94dB @ 1m
Strobe Flash Rate	1Hz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	LA-5579	$99.00	$88.95	$78.95

This section is one of the fastest developing in our catalogue. Last year we did not even have Extreme Action ("Pro") Cameras. This year they are one of our biggest sellers! The way it's going Sports-extreme Action Cameras will have their own section next year.

Indeed, combined video camera/recorders are becoming popular in other areas as well. For example, the Time Lapse/Motion Activated Cameras are becoming more & more sophisticated - see page 385. You will also see on the same page an unbelievable Camera/Recorder built into a spectacle frame.

We also have heaps of iPhone®/iPad® accessories, an unbelievable range of In-vehicle Mounting Brackets, Special Chargers, Lightning™ Adaptors, Power Banks, Earphones, Speakers, etc..

In addition to this we have the latest in Wireless Networking (page 396), Routers and other Network Switches. There are countless accessories to service all this stuff.

For a company that does not sell laptors or other mainstream PC's we sure have a lot!

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HIGH DEFINITION ACTION CAMERA

720p HD Sports Camera with Waterproof Case

Strap this camera to your bike handlebars or car dashboard and record all of the thrills and spills of your action sport. It records video in high definition up to 720p onto a microSD card (available separately), and can be played back on the 2" colour touch screen or by connecting to a PC. Features a photo taking mode and a vehicle video recording mode that cycles the video continuously to avoid the microSD card becoming full on long journeys. The internal li-ion battery will provide up to 1 hour of recording time, and can be charged from a USB port of a PC or by using the included car cigarette lighter cable.

Attachments included:
- Waterproof case (IPX8)
- Handlebar seat-post mount
- Helmet mount and belt
- Protective shield
- Suction cup mount

NEW 2013

Rear of camera

Waterproof case

GO ON! Be a Pro

Helmet mount with strap

Universal Tripod mount

Handle bar mount

WATCH VIDEO

Suction cup mount

Check out our video on our website..

Specifications	QC-8018
Screen size	2.0-inch
Camera resolution	1.3MP CMOS
Camera lens	F3.1 f=9.3mm
Camera zoom	4x digital
Resolution VGA:	640 x 480 at 60fps
Resolution 720p:	1280 x 720 at 30fps
File format	AVI / JPEG
Still image resolution	up to 5.0MP (2592 x 1,944)
Video with sound	Yes (built in microphone)
Storage	microSD card class 10 up to 32GB (Not included)
Video file size	Approx 6GB per hour
IP Rating	IPX8 (Up to 3m depth)
PC interface	USB2.0
Power source	3.7V Li-ion built-in
Power life	more than 1 hour from 2 - 4 hour charge
Dimensions / Weight	67(L) x 47(W) x 29(D)mm / 50 grams

TECH TIP!
8GB Class 10 microSD Card to suit on page 422 - holds up to 120 mins of video or over 6000 photos

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
720P HD Sports Camera	QC-8018	$99.00	$88.95	$78.95

Action Cameras

HIGH DEFINITION ACTION CAMERAS (CONTINUED)

NOTE! Price Breakthrough!

1080p HD Sports Camera With Waterproof Case

Capture extreme outdoor action in glorious 1080p (1920 x 1080) at 30 frames a second. Great for mountain bikers, skaters and anyone else who wants high definition footage of their stunts, crashes, and wipe-outs. It also comes with a fully waterproof case, handlebar mount, glass suction mount, helmet mount, surfboard mount, and an IR remote control. There are 3 video recording modes at various resolutions, so you can capture footage at 120fps (640 x 480) for slow-mo footage or up the 1080p at 30fps for impressive Full HD action. With that said, the device isn't limited to video.

Once your footage and images are captured you can transfer it to a PC with a USB cable or watch it directly on your TV with a HDMI cable. This is possible thanks to the mini HDMI port on the camera body. Includes a rechargeable Li-ion battery that can be charged via USB. Can be mounted on your bike, bag, surfboard, helmet etc.

Due in June

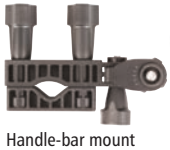
Specifications	QC-8020
Screen size	2.4 inch
Camera resolution	5.0MP CMOS
Camera lens	F3.1 f=9.3mm
Camera zoom	4x digital
Resolution VGA	640 x 480 at 120fps
Resolution 720p	1280 x 720 at 60fps
Resolution 1080p	1920 x 1080 at 30fps
File format	AVI / JPEG
Still image resolution	up to 5.0MP (2592 x 1,944)
Video with sound	Yes (built in microphone)
Built-in microphone	Yes
Storage	microSD card class 10 up to 32GB (Not included)
File size	4GB card can record 45 minutes or 11 minutes per GB
IP Rating	IPX8 (Up to 3m depth)
PC interface	USB2.0
Power source	3.7V Li-ion built-in
Power life	more than 1 hour from 2 - 4 hour charge
Dimensions / Weight	74(L) x 52(W) x 30(D)mm / 50 grams

TECH TIP!
8GB Class 10 microSD Card to suit on page 422 - holds approx 80 mins of video or 2500 photos.

Surfboard mount

Strap mount

Strap mount



Handle-bar mount

Suction Cup mount

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
1080p HD Sports Camera	QC-8020	$169.00	$151.95	$134.95

SPORTS CAMERAS

1.3MP Mini Digital Video Camera

This thumb-sized clip-mount mini digital spy recorder delivers the ultimate in discrete portable photo and video recording. From business meetings to outdoor sports activities, it has limitless applications including fixed security surveillance, portable evidence collection, babysitting monitoring, web camera and general home videos. With a built-in 2GB internal memory, it also takes a Micro SD and can support up to 8GB of memory. Comes with a lanyard, USB lead, pocket clip and stand so you can use it on a bicycle, car or whatever else your imagination comes up with.

- 1.3 MP camera
- High speed recording and fast response
- Low light recording
- Manual and sound activated recording functions
- Supports AVI
- Rechargeable Li-ion battery lasts for 2 hours of non-stop recording
- Size: 57(H) x 22(W) x 19(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
	QC-8003	$29.95

1.3MP Digital Video Sports Camera

The camera straps onto a helmet and has a super-sticky adhesive mount to keep it in place. It has simple one-button operation to start and stop recording and uses SD cards up to 32GB for storage. Mountain biking, skateboarding, BMX, skydiving, bungee jumping etc.

- Requires 2 x AAA batteries.

Specifications	
Video resolution:	640 x 480 @ 30 fps
Imaging sensor:	1.3MP
Dimensions:	90(L) x 50(Dia)mm

Note: Helmet not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+
	QC-3238	$39.95	$35.90

3MP Mini HD Digital Video Camera

Ultra portable HD video camera and recorder. Length of recording time will depend on card capacity and definition, but the internal memory will hold about 50 minutes of standard definition, 20 minutes of high definition video or over 3000 photos. The internal lithium battery recharges via USB and will provide about 4 hours of use. Pocket clip and desk stand included. Endless uses for sports, surveillance, business etc.

- Recording time: HD 20 minutes, SD 50 minutes
- 350mAh rechargeable battery - recharges by USB
- 2GB internal memory - supports up to 32GB MicroSD card
- AVI format
- 1280 x 720p resolution
- Weighs only 25g
- Size: 78(H) x 23(W) x 14(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+
	QC-8005	$69.00

Camera Mount for Motorbikes & Bicycles

This unit enables you to mount a video or still camera clamped to the handlebars of a bike via a standard 1/4" mount. Virtually unlimited movement, thru horizontal, vertical etc. is allowed. Your valuable cameras can be removed quickly and safely via a spring-loaded locking mechanism.

- Handle bar clamp range from 21 to 28mm dia.
- Measures: At max height 75(H) x 44(W) x 60(L)mm.

NEW LOWER PRICE

	Cat.	Qty 1+
	QC-3805	$6.95

TECH TIP!
Warning: These cameras should not be placed in areas where there is an expectation of privacy. Such places typically are: bathrooms, bedrooms, toilets, dressing rooms etc.. Use of these devices in such locations, can lead to criminal prosecution and severe penalties.

TIME LAPSE CAMERAS

Weatherproof Time Lapse HD Camera

Take amazing time lapse videos of your spring flowers opening, start to finish of the renovation, cityscapes, etc. Captures photos at pre-set time intervals between 5 seconds to 24 hours and creates an AVI video on a USB memory stick for playback on a PC. The included 2GB memory stick will store up to 30 minutes of video which contains 600 photos each minute, a total of 18,000 photos!

- 1280 x 1024 resolution
- Supports USB memory sticks up to 8GB
- Standard and Macro image (for closer shots)
- Weatherproof
- Includes 4 x AA batteries
- Dimensions: 192(H) x 93(W) x 60(D)mm
- Supports up to an 8GB USB Flash Drive
- Software Compatible with Windows XP, Windows Vista, Windows 7

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8030	$199.00	$178.95	$168.95

Motion Activated Time Lapse HD Camera

Takes photos whenever it detects movement and creates a time lapse video to playback later on a PC. Perfect to put at the front door or secured areas to see which uninvited guests visited, to record what mischief your pet got up to while you were out, to take photos of birds at their nest or feeder, etc. Once the PIR detects movement it will capture 30 frames in 30 seconds and store that video onto a SD memory card. Supplied with mounting holder, suction holder, 4 x AA batteries and 2GB SD memory card.

- 1280 x 720 resolution (AVI format)
- Field of view: 61 degrees
- Detection angle: 98 degrees
- Detection distance: 4m
- Dimensions: 160(H) x 108(W) x 57(D)mm

Note: Batteries included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8032	$199.00	$178.95	$168.95

Time Lapse HD Video Camera with LCD Viewfinder

Create amazing time lapse videos in high definition with this clever time lapse camera. It captures images at a preset intervals between 1 second to 24 hours and creates an AVI video file that you can playback later. Setup and operation is easy; simply use the LCD viewfinder and 120 degree rotatable lens to frame your subject, set the time interval, and start capturing. The video on the included 2GB SD card can be played back on a computer, media player, suitable TV or digital photo frame. The supplied 4 x AA batteries can capture 300,000 frames. It can also be powered from the USB port of a computer (USB cable required).

Specifications	
Video format	AVI
Resolution	1280 x 720, 640 x 480
Field of view	59 degrees
Focal length	36mm (35mm equivalent)
Focus distance	75cm (Minimum)
Time Interval	from 1 second to 24 hours
Memory storage	SD Card (Supports up to 32GB)
LCD Screen	1.44" Colour TFT
Power Source	
Battery	4 x AA included
DC	5VDC (Micro USB connector)
Dimensions	106(H) x 64(W) x 46(D)mm
Weight	120g

QC-8031

QC-8033

QC-8035

QC-8037

QC-8039

TECH TIP!
Use the QC-8033 remote control to create stop motion footage

		Cat.	Qty 1+	Qty 2+	Qty 4+
Time Lapse Camera		QC-8034	$229.00	$209.00	$194.95
Wide Angle Lens to Suit	NEW	QC-8031	$129.00		
Shutter Cord Switch to Suit	NEW	QC-8033	$19.95		
Motion Sensor PIR to Suit	NEW	QC-8035	$69.95		
Waterproof Housing to Suit	NEW	QC-8037	$59.95		
Bag Pouch to Suit	NEW	QC-8039	$29.95		

OUTDOOR DVR MONITORING SYSTEM

Motion Activated Outdoor Camera with Flash

A weather resistant outdoor camera for a wide range of outdoor applications, including surveillance around the home, office or warehouse, or for wildlife applications. The PIR sensor with 5-zones for wide angle detection triggers the 7MP camera for colour photos and videos by day or monochrome photo and videos by night. Night vision is assisted using the bright IR flash, which illuminates objects up to 15m away. Photos and videos up to 90 seconds long are recorded to its 32MB internal memory or an SD Card up to 2GB (available separately) for more storage. Playback the vision with audio on the integrated 2.4" colour LCD screen while in the field, or by connecting to a PC. Other features include a fast 1.3sec fast trigger time, highly sensitive microphone, TV output, and security lock hole for a padlock. Power is provided by 4 x D and 3 x C batteries. We recommend Alkaline batteries for longer operation.

Supplied with USB and AV cable, PC software, mounting strap and lens hood. Visit our website for more details and video demonstration.

- 3MP camera* Rapid-pulsing infrared technology.
- Fast trigger time 1.3s at turbo mode.
- Separate controls for camera and sensor
- Time and Date stamp
- Built-in 2.4" TFT screen and voice memo recording to keep vocal track in the field.
- 5 zones PIR lens for wide angle detection range.
- 1-3 Quick Shots setting.
- Video resolution: VGA 640 x 480 30fps
- Power: 4 x D and 3 x C batteries not included
- Pause time: 0-90 minutes / Video length: 3-90s for day and night.
- Weight 640gm without batteries
- Dimensions: 192(L) x 120(W) x 90(H)mm

Note: Batteries not included

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8036	$179.00	$160.95	$151.95

CAMERAS FOR FUN

High Definition video recorder hidden in "Hollywood Director" style glasses.

The most realistic covert spy glasses we have come across. Other units available on the market are big and bulky and just look plain tacky. These 720p high definition digital video recorder glasses not only look like a real set of spectacles, but are also very stylish. The camera lens is virtually impossible to see located in the bridge of the nose of the ultra flexible frame. Features 8GB of built-in memory, rechargeable battery and a discreet on and off switch.

Features:
- Recharge batteries by USB
- View angle 62 deg, 1 LUX
- USB 2.0 interface

Specifications:
- Video format: AVI
- Video Resolution: 640x480 / 1280x720 @ 30fps
- Photo Resolution: 1600x1200

Warning: These cameras should not be placed in areas where there is an expectation of privacy. Such places typically are: bathrooms, bedrooms, toilets, dressing rooms etc.. Use of these devices in such locations, can lead to criminal prosecution and severe penalties.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	QC-8022	$179.00	$160.95	$151.95

Docking Stations

DOCKING STATIONS FOR iPOD®, iPAD®, iPHONES®

AV Docking Station for iPhone®/iPod®

This docking station allows you to connect your audio and video devices with your iPod® or iPhone®. Share and play your music, pictures and videos on your TV, monitor or home audio system. Features video output, audio jack and USB port designed to charge your device while connected. The dock also comes with a full functioning IR remote control, AV & USB power cable.

Specifications	
AV output	Composite, stereo audio
USB charge port	
Compatible with	iPhone®, iPod Nano 2nd gen up, iPod Touch® 1st gen up
Dimensions	88(W) x 74(L) x 19(H)mm

iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7715	$39.95	$35.90	$31.90

Docking Station with Audio Out for iPad®/iPhone® & iPod®

Listen to your favorite tunes off your iPad®, iPhone® or iPod® with this docking station. Connects up to powered speakers using the 3.5mm audio input to the docking station. Charge and synchronize your Apple® device to your PC or Mac simultaneously. Includes a Mini B USB lead and a 3.5mm to 3.5mm audio cable.

iPhone® not included

Specifications	
Inputs	USB Mini B, 3.5mm Audio
Supports	iPad®, iPad 2®, iPhone® 3GS/4 and iPod Touch®
Dimensions	100(L) x 80(W) x 25(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7718	$39.95	$35.90	$31.90

HDMI Docking Station for iPad®/iPhone®/iPod® with Remote

Play slideshows or movies from your Apple® device on the big screen by connecting the dock with a HDMI compatible display device. Features HDMI video output, audio jack and USB port designed to keep your device synchronised and powered for hours of entertainment. The docking station also includes a full functioning IR remote control and two silicone cases to protect your device.

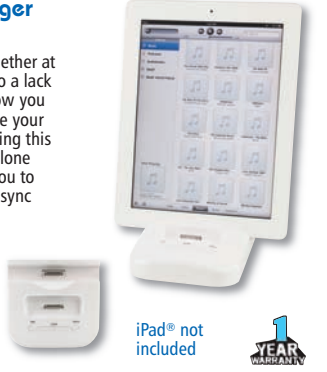
iPad® not included

Specifications	
A/V output	HDMI, stereo audio
Supports	up to 1080p video resolution
Audio & USB cable	included
Compatible with	iPad®, iPad 2®, iPhone 3GS/4®, iPod Nano® 4th gen up, iPod Touch® 1st gen up
Dimensions	72(W) x 68(L) x 28.5(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7717	$69.95	$62.95	$55.95

Docking Station and Dual Charger for iPad® and iPhone®/iPod®

Charging your iPad® and iPhone®/iPod® together at the same can be a bit of a nightmare, due to a lack of space or mains charger. Not anymore. Now you can eliminate all the other clutter and charge your iPad® and iPhone®/iPod® simultaneously using this ingenius docking station. It acts as a standalone charger and docking station which allows you to connect your devices to your computer and sync with your iTunes® account.



- Easily sync one device at a time
- Compatible with iPad®/iPhone®/iPod®
- Power adaptor input: 9V/2A
- iPad® charges at 5V/2.1A
- iPhone®/iPod® charges at 5V/1A
- Weight: 0.332kg
- Dimensions: 170(L) x 110(W) x 30(H)mm

iPad® not included

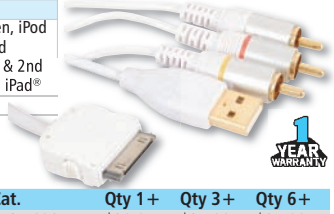
	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7719	$49.95	$44.90	$39.90

AV LEADS FOR iPOD®, iPAD®, iPHONES®

Audio/Video Cable for iPod®/iTouch®/iPhone®

Extend the multimedia capabilities of your Apple device by connecting it up to a large screen TV, a projector, or even your home theatre audio setup. The cable uses RCA composite video to pipe audio and video to the big screen. It also features USB for charging or connecting to a computer.

Specifications	
Compatible with	iPod Photo®, iPod® 5th gen, iPod Nano® 3rd & 4rd gen, iPod Classic®, iPod Touch® (1st & 2nd gen), iPhone®, iPhone 3®, iPad®
Cable length	1.5m



	Cat.	Qty 1+	Qty 3+	Qty 6+
Composite	WC-7698	$39.95	$35.90	$31.90

AV Component Cable to suit iPod®/iTouch®/iPhone®/iPad®

Connect an Apple® device to a HDTV, projector or the home theatre system via the component RCA input. Features a USB connection to charge the Apple® device.

Specifications	
Cable length	1.5m
Compatible with	iPod Photo®, iPod® 5th gen, iPod Nano® 3rd and 4th gen, iPod® classic, iPod Touch® 1st & 2nd gen, iPhone®, iPhone 3®, iPad®

iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
Component	WC-7699	$34.95	$31.45	$27.90

HDMI AV Cable for iPad®/iPhone®/iTouch®

Extend your multimedia capabilities with your Apple® devices by connecting it to a large screen TV, projector or even your home theatre audio setup. The cable uses HDMI plug that streams audio and video to the big screen. Support movies and photo slideshows with video resolution up to 1080p.

Specifications	
Compatible with	iPad®1 & 2, iPhone 4/S®, iTouch® 4th Gen
Supports movies and slideshows	
Video resolution	up to 1080p
Cable length	1.8m

iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
HDMI	WC-7711	$54.95	$49.45	$43.90

HDMI Converter for iPad®/iPhone®/iTouch®

Stream audio and video to your big screen TV from your Apple® device via HDMI connection. Share and play your favourite songs, videos and photos on your TV or monitor. The USB port allows you to synchronize and charge your device for non-stop entertainment.

Specifications	
Supports up to	720p video resolution
Compatible with	iPad®, iPad 2®, iPhone 4®, iTouch® 4th Gen
Dimensions	157(L) x 116(W)mm

iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
HDMI	WC-7713	$49.95	$44.90	$39.90

GPS Puzzle Box

Makers Name: Jake Linnenbank
Location: New South Wales

The GPS Puzzle Box is an Arduino-based lock box, that only unlocks when the GPS determines that it is at the correct pre-programmed coordinates. There are two standard modes for using the box: The first is a single location puzzle - where the user has to navigate to the correct coordinates based on the distance to destination. The second is a multi-stage puzzle, where the user must navigate to a series of predetermined coordinates in the correct order.

For more details scan the QR code or go to www.jaycar.com.au/makers

CAR BRACKETS - iPOD®, iPAD®

12VDC Charger Cradle for iPhone® 3/4

Holds and charges your iPhone® as you drive. The holder plugs directly into the car cigarette lighter and has charging cradles to suit both iPhone® generations and a universal holder for other types of mobile phones. The iPhone® cradle doubles as a protector case whilst out and about and docks securely into the holder bracket when you get back in the car.

- Power: 12VDC
- Includes a case/cradle for both iPhone® 3 & 4

Note: iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9012	$14.95	$13.35	$11.70

Bicycle Bracket Mount for iPhone® 3/4

Easily mount your iPhone® to the handlebars of your bicycle so you can take calls, navigate with your GPS app, listen to your favorite music, etc. Position to the optimum viewing angle for riding using the ball and socket joint. A locking mechanism safely and securely locks either the iPhone 3® or iPhone 4® cradle into the bracket.

- Dimensions: 116(L) x 60(W) x 84(D)mm

Note: iPhone® not included.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9016	$19.95	$17.70	$15.70

Universal Suction Mount Bracket for iPhone® 4/4S/5

This handy bracket mounts an iPhone® or other mobile phone on the windscreen or dashboard of the car where it's easily accessible. The strong 70mm diameter suction mount locks it in place, and the ball and socket joint allows you to position the bracket for the optimum viewing angle. Includes universal mobile phone and iPhone 4/5® brackets.

- Dimensions: 115(L) x 60(W) x 11(D)mm

Note: iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9014	$19.95	$17.70	$15.70

Suction Mount Bracket for Smartphones

Extremely strong suction mount joined to a tough flexible gooseneck. A wide variety of Smartphones will sit comfortably in the adjustable grip so you can access your phone while in your vehicle. The cradle can be rotated for portrait or landscape view.

- Dimensions: 235(L) x 84(W)mm

Note: iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9030	$19.95	$17.70	$15.70

Smartphone Bracket Cup Holder Mount

If you prefer a more unobtrusive mount for your Smartphone or Tablet this is perfect. It's designed to be mounted in your car's cup holder! The base makes use of a cup "plug" that can be widened to lock it in place. The main grip can then be adjusted to accommodate a wide variety of Smartphones and Tablets. Vertical and horizontal angles can be changed to suit your needs.

- Dimensions: 211(H) x 130(W) x 110(D)mm (collapsed)

Note: iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9032	$24.95	$22.35	$19.70

Universal Tablet Holder with Heavy Duty Suction Mount

Uses an extremely tough suction mount with a heavy duty adjustable gooseneck connected to a locking ball joint. The Tablet holder grip can be made wide or narrow by changing the grooves they're slid into. For a semi-permanent solution for Tablet access in a car, truck, or caravan this solution is ideal.

- Suitable for iPad®, Android® and surface Tablets
- Gooseneck 239(L) x 110(Dia.)mm
- Holder 185(H) x 165(L) x 135(W)mm

Note: iPad® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9034	$24.95	$22.35	$19.70

Tablet Holder with Heavy Duty Suction Mount

Designed to be fixed in one position but can be easily adjusted if necessary, this holder will accommodate a variety of different sized Smartphones and Tablets for your car, truck, or van. The adjustable holder sits on a lockable ball joint for angular adjustments to get the perfect viewing angle. The holding vice (sides and bottom) can be slid out of their grooves and moved to a wide or narrow grip. Vertical height can be lowered or raised and the main arm can be locked at specific vertical angles. Features a suction mount for an extremely tight grip on a window or dash surface.

- Compatible with iPad®, Android®, surface Tablets
- Dimensions: 190(H) x 140(L) x 140(W)mm

Note: iPad® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HS-9036	$29.95	$26.90	$23.70

Car Headrest Mounting Brackets for iPads®

No longer is there the need to purchase a separate in-car entertainment system for the kids to watch movies and play games whilst on the road. Simply mount this bracket to the metal bars on the headrest and place the iPad® into the cradle. The cradle also doubles as a protector case while out and about, then securely docks onto the bracket (by sliding the case onto the mount) when you get back in the car. This is a really handy solution for keeping kids and teenagers amused on long journeys.

- Includes a case and cradle

Two models available:
Bracket for iPad 1® HS-9010
Bracket for iPad 2® HS-9011

Note: iPad® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
Bracket for iPad 1®	HS-9010	$14.95	$13.35	$11.70
Bracket for iPad 2®	HS-9011	$14.95	$13.35	$11.70

Mounting Brackets & Holders

BRACKETS - iPOD®, iPAD®

Transmitter/Charger/ Gooseneck In-car Holder

A necessary accessory to have for your iPhone 5® and iTouch 5® in your vehicle. The bracket holds the device in place and charges the device through the lightning connector. It has a built in FM transmitter that allows you to stream your conversation and music to your car's sound system for Hi-Fi reproduction. The unit connects to 12V power via the cigarette lighter socket and has a rigid gooseneck/swivel bracket to hold at the desired position.

- Range: 5m
- Frequency: 88 - 107MHz

Note: iPhone® not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
AR-3125	$49.95	$44.90	$39.90

Bracket Stand for iPhone®/iPad®/Android

A convenient tripod stand for a Tablet and Smartphone, including iPhone®, iPad® and Android devices. The middle leg of the stand can be adjusted to set the angle at which the device sits. Lightweight and versatile.

- Dimensions: 110(H) x 43(W) x 38(D)mm

NEW LOWER PRICE

Note: iPad® not included

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9018	$7.95	$6.95	$6.25

Magnetic Wall Mount for iPad®

This wall mount bracket enables you to safely mount your iPad® in a prominent location where you can easily find it (or use it). It grips the iPad® by its corners and you hardly notice its presence. It will stick by its magnetic pad straight to a fridge or filing cabinet etc or any firm flat surface with its magnet adaptor pad (2 x screws/plugs supplied.)

You will love this simple product, hopefully before you stand or sit on your iPad®!

- Cruciform shape
- Landscape or Portrait format
- Silver metallic frame

Note: iPad® not included

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9013	$24.95	$22.35	$19.70

WATERPROOF HOLDERS - iPOD®, iPAD®

Waterproof Smartphone Pouch with Armband & Headphones

Keep your Smartphone protected from the elements. Just slide your iPhone® or Android Smartphone into the holder and strap it around your arm with the hook and loop band, or attach to your hiking gear with the supplied carabiner. The case is IPX8 rated for submergibility up to 6m. Inside the case is a short audio lead with a 3.5mm plug that converts to a 3.5mm socket on the exterior so you can plug in a pair of headphones. Great for boating, kayaking, cycling, caving, snowboarding, or braving sandstorms in the Gobi desert.

- Suitable for iPhone® 2G/3G/3Gs/4G, iPod Touch®, and some 4.3" Android Smartphones such as the Samsung Galaxy S1/S2 (certain HTC and other models will have their ON button blocked by the cover, though still usable).
- Includes waterproof headphones
- Dimensions: 190(L) x 90(W)mm

Note: iPhone® not included

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9020	$24.95	$22.35	$19.70

Smartphone Waterproof Case with Windscreen and Bike Mount

Keep your phone secured and protected but accessible while mountain biking, boating or for other outdoor activities. It will accommodate an iPhone® or Samsung Galaxy S3® with the use of a specially designed adaptor. The front of the case uses a flexible transparent rubber covering while the rear also has a clear rear cover for your camera. A 3.5mm cable connects to the phone inside and provides a socket so you can connect headphones while the phone is in the case. IPX-8 waterproof design so will protect the device inside when fully submersed down to a 1m depth. Includes: IPX8 case, suction glass mount bracket and handle bar mount bracket.

- 3.5mm internal cable to allow the use of headphones
- Compatible with: Samsung Galaxy S3®, iPhone 5®, 4G, 4Gs, 3G, 3Gs, 2G and the new iPod® Touch and mobile
- Dimensions: 170(L) x 86(W) x 22(H)mm

Note: iPhone® not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9023	$49.95	$44.90	$39.90

Waterproof Carry Case for iPad® & Tablets

iPads® are fantastic for accessing information anywhere but some scenarios may results in a dirt, dust, water or grease covering your screen. Chefs, mechanics, sailors, or builders who need to access data in the field on their iPad® don't want it covered in gunk so a form of protection is a necessity. With an IPX8 rating allowing full water submergibility and dust-proofing, this case is a must have. It's also great for recreational activities such as camping, kayaking, and boating.

- IPX8 waterproof rating
- Carry strap included
- Dimensions: 320(L) x 214(W) x 2(D)mm
- Fits tablets up to 243(L) x 190(W) x 13(D)mm

Note: iPad® not included

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9022	$29.95	$26.90	$23.70

Waterproof Holder with Bracket for iPad®

Perfect for marine or heavy duty off-road applications this iPad® holder is submersible in water up to 1m. Given the raft of useful apps for marine charting, weather and ocean conditions it is a good idea to have an iPad® on board so you don't unwittingly sail into a maelstrom.

It features a transparent protective cover and bracket for securely mounting in the helm and the holder is detachable from the bracket so you don't lose the tablets mobility. Inside the holder is a 3.5mm plug which converts to a 3.5mm socket on the exterior for connection to speakers.

Not limited to marine use it could be used in an off-road vehicle.

- IPX8 waterproof rating
- Bracket is secured with 2 bolts
- Dimensions: 295(L) x 237(H) x 190(D)mm

Note: iPad® not included

Cat.	Qty 1+	Qty 3+	Qty 6+
HS-9028	$79.95	$71.95	$63.95

TRACKING DEVICES - iPHONE®

Protective Case with Wireless Alert Keyring to suit iPhone 4®

NEW 2013

Never leave your iPhone® behind again. Hidden within the lightweight protective case is a wireless transmitter that pairs with the small receiver that clips onto your keys or a belt loop on your pants. When the iPhone® and receiver become 2m apart the receiver will beep to alert you that you have left your iPhone® behind, or that someone may be stealing it. The protective case has a soft touch finish and features a slim retractable bracket to hold the iPhone® in a portrait or landscape position on a table. A red LED on the case and receiver indicates an alarm condition or if the batteries need to be recharged. A USB charging cable is supplied to charge the case and keyring which operate for up to 58 hours on a full charge.

Note: iPhone® and keys not included

- Suits iPhone 4® & iPhone 4s®
- Alarm: 95dB
- Frequency: 2.4GHz
- Rolling code encryption
- Dimensions:
  Case: 117(H) x 60(W) x 14(D)mm
  Keyring alarm: 60(H) x 24(W) x 14(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 8+
	XC-0364	$39.95	$35.90	$31.90

Bluetooth® Keyring Locator with App for iPhone®

NEW 2013

An electronic leash that will sound an alarm when your iPhone® leaves your vicinity. You can also use your iPhone® to find the lost keyring thanks to the duplex communication protocol. A handy app is available which will show on Google Maps® the last time the keyring and phone were connected. The app can control the alarm threshold distance, set the keyring to start beeping when a call is incoming, and switch the proximity alarm on/off. A brilliant little device that could save you a lot of trouble.

Specifications	
Bluetooth® protocol	4.0
Search range	20m
Batteries	Includes 1 x CR2032 button cell
Battery life	3-6 months
Dimensions	60(L) x 35(W) x 10(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 8+
	XC-0365	$34.95	$31.45	$27.90

MOBILE PHONE/iPOD® CHARGERS

USB Car Chargers

For anyone with a mobile phone or other device that charges from a USB socket, these are the perfect solution for recharging in the car. Simply plug into your car's cigarette lighter socket, and you have a readily available USB charging source. Two models are available - one has just a single USB socket with 1.0A available making it suitable for most mobile phones, iPods® and iPhones®; and the other has two USB sockets with a total of 3.1A available (2.1A + 1.0A) making it suitable for charging an iPad® and mobile phone®/iPod®/iPhone® at the same time.

1.0A USB CAR ADAPTOR
- Input: 10-18VDC
- Output: 5VDC, 1.0A
- Dimensions: 24(Dia) x 52(L)mm

Cat MP-3662

3.1A DUAL USB CAR ADAPTOR
- Input: 10-18VDC
- Output voltage: 5VDC, 2.1A + 1.0A (3.1A total)
- Dimensions: 26(Dia) x 60(L)mm

Cat MP-3664

		Cat.	Qty 1+	Qty 5+	Qty 10+
1A	NEW LOWER PRICE	MP-3662	$9.95	$8.75	$7.75
3.1A		MP-3664	$14.95	$13.35	$11.70

4.2A Dual USB Car Charger

NEW 2013

Simply plug into your car's cigarette lighter socket, and you have a readily available USB charging source. An inbuilt smart charging IC it makes it suitable for charging various brands of Smartphones, tablets or any other USB power hungry devices at their full charge rate.

- Input: 12-24VDC
- Output: 5VDC, 2.1A + 2.1A (4.2A total)
- Dimensions: 75(L) x 27(Dia.)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
4.2A	MP-3666	$19.95	$17.70	$15.70

In-Car Quick Charger for iPhone 5®, iPad® etc.

NEW 2013

A handy in-car charger suitable for charging the latest Apple® brand gadgets such as iPhone 5® and iPad®, which have the new lightning connector socket. With 2.1A of charge current available, this in-car charger is capable of charging your Apple® device at full speed, ensuring you get as much charge as possible on your commute.

- Input: 12-24VDC
- Output: 5VDC 2.1A
- Lead length: 900mm with lightning connector

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3668	$14.95	$13.35	$11.70

In-Car Quick Charger for Smartphones

NEW 2013

More and more non-Apple brand Smartphones and Tablets are using the USB Micro-B socket for charging, and are also needing more current to charge at full speed. With 2.1A of charge current available, this in-car charger is your buddy in the glove box, ensuring you get a full charge into your Smartphone or Tablet on the drive to work. A saviour when you forget to charge overnight.

Specifications	
Input	12-24VDC
Output	5VDC 2.1A
Lead length	900mm with USB Micro-B connector

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3669	$14.95	$13.35	$11.70

OPEN A STORE ACCOUNT WITH JAYCAR

Jaycar is now accepting account applications from all established companies who can exhibit good trade references. For application details see our Store Managers.

Universal USB Mobile Phone Car Charger

The handy universal solution to charging your mobile phone in the car. Included is a cigarette lighter USB car charger capable of delivering 5VDC up to 1A via the USB output, as well as a universal USB charging lead with 9 interchangeable tips to match all the most common mobile phones. You can also use it with any existing USB charging lead you may have.

Specifications	
Input	12 - 24VDC
Output	5VDC, 1.0A

Plugs included:
- USB Mini 5pin
- iPhone®/iPod®
- LG
- Samsung
- Nokia 4mm
- USB Micro B
- Sony Ericsson
- Motorola
- Nokia 2mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	MP-3578	$19.95	$17.70	$15.70

USB Car Chargers for iPad®/iPhone®/iPod®

Charge your full arsenal of Apple devices while you're driving. Simply plug into the car's cigarette lighter outlet. Nothing new about that, but the difference with these is that the USB port(s) put out a huge 2.1A to fast charge an iPad®. Single outlet or double outlet models available. Please note that only one of the outlets on the double outputs 2.1A; the other is rated for 1A (to suit an iPhone®, etc). Both units include a USB charging cable to suit iPad®/iPhone®/iPod®.

MB-3657

MB-3659

	Cat.	Qty 1+	Qty 5+	Qty 10+
Single Outlet Charger	MB-3657	$24.95	$22.35	$19.70
Double Outlet Charger	MB-3659	$29.95	$26.90	$23.70

Smartphone Chargers

MOBILE PHONE - iPOD® CHARGERS

iPhone®/iPod® Car Charger/Audio Kit

NEW LOWER PRICE

Suited to in-car stereo systems with 3.5mm audio-in socket to play music from popular, portable audio devices. Listen to your favourite songs from your iPhone®/iPod® using the integrated audio cable (with a 3.5mm stereo adaptor) while charging it via the supplied cigarette lighter adaptor. Lead length is 1.2m and USB output is 1A.

Cat.	Qty 1+	Qty 3+	Qty 6+
MB-3653	$24.95	$22.35	$19.70

Cup Holder Power Extender with Dual USB Sockets

Plugs into a single cigarette power socket and provides two cigarette power sockets and two USB power sockets, while sitting neatly in your vehicle's cup holder. The input lead is a 1.6m long curly cord, keeping tangled messy cords to a minimum, and the top features LED voltage indicators to show battery condition. The twin USB output sockets are very handy as pretty much everything charges from a USB port these days, meaning you can keep the cigarette power sockets free for other car accessories like the GPS.

Specifications	
Input voltage	12VDC
Output voltage	12VDC
Maximum current	10A (fused)
USB outputs	5VDC 1.0A + 0.5A (1.5A total)
Dimensions	76(Dia.) x 65(H)mm

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2120	$16.95	$14.95	$13.35

Cup Holder Power Extender with Phone Cradle and Dual USB Sockets

This clever charging system is designed to fit in a car cup holder to dock an iPhone® or iPod® in place preventing it from moving around while driving. It also neatly stores the charging cable away in the base to prevent clutter in the car's interior. Two cigarette lighter sockets are provided as well as a USB output for use with other electronic devices. Also has an LED indicator to state the level of your battery.

- 2 x 12VDC cigarette lighter sockets
- 2 x USB outputs
- iPhone®/iPod® holder
- Twist open bottom half
- Dimension: 100(H) x 70(Dia. base) x 92(Dia. top)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 10+	Qty 50+
PS-2122	$24.95	$22.35	$19.70

MOBILE PHONE - GPS CHARGER

Universal GPS Charger with Dual USB Output

This very handy universal GPS charger not only works as a replacement for an original GPS charger, but having two USB outputs and higher output power offers a bonus - allowing you to charge both your GPS and your mobile phone (or other USB device) at the same time! With 2.1A available from each USB port, it has enough power for even the latest and greatest big screen GPS models, whilst still having enough power left over to charge a second USB device. Supplied with 1.2m USB charging lead and 6 replaceable connectors to suit most GPS models.

- Suitable for: TomTom, TomTom XL, Navman, Garmin, Magellan, Navigon, Falk, Mio, etc
- Input: 12-24VDC
- Output: 5VDC, 2.1A max per USB port (4.2A total)
- Dimensions: 100(L) x 42(W) x 25(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
MP-3676	$29.95	$26.90	$23.70

MAINS/CAR PHONE - iPOD® CHARGER

Car & Mains Mobile Phone Charger Pack

The handy universal solution to charging your mobile phone in the car or home. Included is a cigarette lighter USB car charger and a mains USB charger each capable of delivering 5VDC up to 1A via a USB output. The pack also includes a universal USB charging lead with 4 interchangeable tips to match common mobile phones. You can also use either charger with any existing USB charging lead you may have.

Specifications	
Car Charger Input	12 - 24VDC
Mains Charger Input	100 - 240VAC
Output	5VDC, 1.0A

Plugs included:
- USB Mini 5pin
- USB Micro B
- iPhone®/iPod®
- Nokia 2mm

Dimensions:
Car Charger: 100(L) x 36(W) x 31(H)mm
Mains Charger: 69(H) x 41(W) x 39(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
MB-3655	$29.95	$26.90	$23.70

MAINS PHONE - iPOD® CHARGERS

Mains Adaptor with 2 x USB Ports

Charge USB devices without wasting a powerpoint. Simply leave it plugged in and still have access for using a mains appliance. Ideal for the business traveller - ever seen a hotel room with too many power points?

- Size: 88(H) x 44(W) x 33(D)mm

Approval Number	Cat.	Qty 1+	Qty 4+	Qty 10+
SAA110634EA	PP-4038	$12.95	$11.35	$10.35

Mains Travel Adaptors for USB, iPod® & MP3 Players

Handy for charging USB devices without needing to connect the device to your computer. Switchmode adaptor with 5VDC output and 1A max current. USB cable not included as most users will already have this but we have a range of USB cables including a model to suit the iPod®. Suitable for iPhone® and latest generation iPod® products including the iPhone®4.

- The kit includes 4 interchangeable adaptors for Australia, US, UK and Europe power outlets.

Specifications	
Input	100-240VAC 50/60Hz
Output voltage	5VDC
Output current	1A max.
Size	68(L) x 55(W) x 52(H)mm

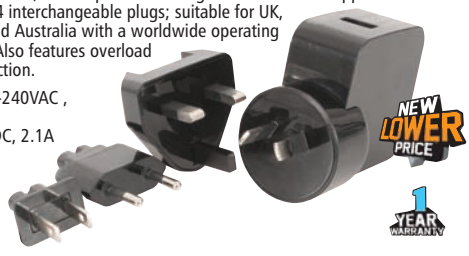
1 YEAR WARRANTY

Approval No.	Cat.	Qty 1+	Qty 5+	Qty 10+
V090116	MP-3452	$19.95	$17.70	$15.70

USB Mains Travel Adaptor for iPad®/iPhone®/iPod®

This compact USB outlet charger is a lightweight and practical unit for charging your Apple® products on the go. Ideal for all your USB powered gadgets such as an iPod®/iPhone®/iPad®, PDAs, mobile phones and digital cameras etc. Supplied with USB charge/sync lead and 4 interchangeable plugs; suitable for UK, Europe, USA, China and Australia with a worldwide operating voltage of 100-240V. Also features overload and short circuit protection.

- Input voltage: 100V-240VAC , 50/60Hz
- Output voltage: 5VDC, 2.1A
- Size: 53(L) x 53(H) x 26(W)mm



NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
MP-3458	$19.95	$17.70	$15.70

4-in-1 Magnetic Charging Hub

NEW 2013

An extremely convenient and attractive mains charger for your Smartphone or MP3 player. Comes with a variety of cables that magnetically connect to the charging hub to give more juice to your device.

- Sleek and compact, just sit it under your computer monitor and start charging!

Specifications	
Includes	30 pin iPhone® connector, Mini USB, Micro-B USB and Nokia connector
Over current/voltage protection	
Output current	800mA
Output voltage	5V
Dimensions	80(Dia.) x 15(H)mm

1 YEAR WARRANTY

Note: iPhone® not included

Cat.	Qty 1+	Qty 5+	Qty 10+
MB-3651	$49.95	$44.90	$39.90

CHARGERS FOR iPOD®, iPHONE® & iPAD®

USB Mini Power Adaptor - 1A

A simple solution to your USB power needs in a conveniently small package. With 5VDC output at 1.0A, this little AC power adaptor has enough grunt to charge pretty much any mobile phone or USB device, including all iPods® and iPhone® models. Also features worldwide voltage input making it great for travellers. Just connect your USB charging cable (not included) and away you go.

Specifications	
USB	Socket A
Input voltage	100-240VAC, 50/60Hz
Output	5VDC, 1.0A
Dimensions	40(dia) x 27(L)mm

RELATED PRODUCT...
For our range of Mains Travel Adaptors see page 284

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
1.0A	MP-3455	$14.95	$13.35	$11.70

2.1A USB Mains Power Adaptor

NEW 2013

Charges an array of mobile phones, Tablets, and MP3 players with ease. Output has 2.1A of current so will comfortably charge a Smartphone, iPad® or other tablet at full speed. Compact design with worldwide voltage input makes it ideal for travellers.

- Input: 100-240V - 60/50HZ 260mA
- Output: 5VDC, 2.1A
- Dimensions: 58(W) x 54(L) x 35(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
2.1A	MP-3456	$19.95	$17.70	$15.70

Dual USB Mains Power Adaptor - 2 x 2.1A

NEW 2013

An ultra fast USB charger complete with 2 x USB sockets with 2.1A each, capable of charging virtually any mobile phone or USB device including all iPad®, iPhone® and iPod® models. Features worldwide voltage input making it great for travellers. Outputs 2100mA for each socket allowing it to charge 2 devices simultaneously. The perfect mobile device charging solution for your home and travel needs.

- Input voltage: 100-240VAC, 50/60Hz
- Output: 5VDC, 2.1A + 2.1A (4.2A total)
- Dimensions: 60(W) x 60(H) x 30(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
2 x 2.1A	MP-3459	$24.95	$22.35	$19.70

Mains Power Adaptor for iPad®/iPhone®/iPod®

NEW 2013

Mains power adaptor suitable for charging Apple® products including iPad®

- 30 pin connector
- Includes 1m USB charging/sync cable
- Input: 240VAC 50Hz
- Output: 5VDC, 2.1A

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
2.1A	MP-3457	$19.95	$17.70	$15.70

Universal Mobile Phone Charger

1 YEAR WARRANTY

Charges popular Smartphones, mobile phones and iPhone®/iPod® as well as some PDAs and MP3 players.

- Mains powered (100 - 240VAC)
- Output: 5VDC 1A regulated
- DC output USB port (female)

Plugs included:
- USB Mini 5pin
- USB Micro B
- iPhone®/iPod® 30-pin
- Sony Ericsson
- LG
- Motorola
- Samsung
- Nokia 2mm
- Nokia 4mm

iPhone® not included

	Cat.	Qty 1+	Qty 5+	Qty 10+
1.0A	MB-3656	$29.95	$26.90	$23.70

LEADS FOR iPOD®, iPAD® & iPHONES®

USB Charge/Sync Lead for iPad®/iPhone®/iPod®

NEW 2013

Suitable for Apple® iPhone®, iPod® and iPad® with 30-pin Apple® connector.

Length		Cat.	Qty 1+	Qty 3+	Qty 6+
150mm	NEW	WC-7689	$4.95	$4.45	$3.90
1m		WC-7693	$7.95	$6.95	$6.25
3m	NEW	WC-7688	$9.95	$8.75	$7.75

Charge/Sync Keyring for iPhone®/iPod

NEW 2013

Attach to your keyring for a convenient way to charge or sync your iPhone®, iPad®, or iPod®. Looks like a standard car remote but inside is a USB plug and a standard iPhone® connector.

- Dimensions: 49(L) x 38(W) x 9(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7697	$9.95	$8.75	$7.75

USB Charge/Sync Lead for iPad®/iPhone®/iPod®

Replacement cables for connecting iPods® with Apple's® 30 pin connector (iPod Clickwheel®, iPod Mini®, iPod Photo® etc) to a Mac®.

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1m	WC-7692	$14.95	$13.35	$11.70

Retractable Lead for iPhone®/iPad®/iPod® to USB A Socket White

NEW LOWER PRICE

Full length cables become easily tangled and damaged inside bags as we carry them with us. This high quality and durable retractable lead extends to your desired length as required and retracts easily after you're done.

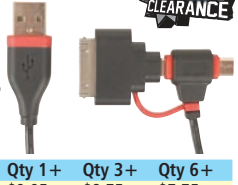
- 30 pin connector
- Convenient for travel
- Easy to pack up & stores neatly.
- White in colour

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1m	WC-7730	$14.95	$13.35	$11.70

USB to Apple® Connector/USB Micro B and Mini B Cable

CRAZY CLEARANCE

A versatile USB cable that can connect to an Apple® iDevice, or anything that features a micro or mini USB socket. The t-shaped end of the cable features a USB mini and micro plug on either side as well as an Apple® connector that can piggy back off the mini USB plug.



- 30 pin connector

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1m	WC-7691	$9.95	$8.75	$7.75

USB Lead with 3.5mm Stereo Plug for Audio/Sync/Charge iPhone®/iPod®

A handy lead that allows you to play your iPhone®/iPod® tunes in stereo to an auxiliary input of your portable speaker, Hi-Fi system and car stereo system. It will also charge and sync your iPhone®/iPod® device by plugging the USB to an outlet or computer.

- 30 pin connector

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.2m	WC-7695	$19.95	$17.70	$15.70

Sync/Charge Lead for Galaxy Tab® - 1m

NEW 2013

Sync/charge lead to suit Samsung Galaxy Tab.

- Length: 1m

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1m	WC-7680	$9.95	$8.75	$7.75

Smartphone Adaptors & Accessories

6-in-1 Card Reader for iPad®

NEW 2013

Plug the memory card reader into your iPad® and easily transfer photos to it from your digital camera, via a USB lead or removable memory card. You can also use the USB output to connect a keyboard.

- Accepts SD(HC), MS DUO, MMC, M2 & microSD Cards
- Supports popular image formats such as JPEG and RAW

iPad® not included

6-IN-1 CARD READER FOR iPAD 1/2/3®
- Suits 30-pin connector
- Dimensions: 47(L) x 50(W) x 14(H)mm

WC-7714

6-IN-1 CARD READER FOR iPAD MINI®/iPAD WITH RETINA DISPLAY®
- Suits Lightning™ connector
- Dimensions: 48(L) x 50(W) x 14(H)mm

WC-7716

Connector	Cat.	Qty 1+	Qty 3+	Qty 6+
30-pin	WC-7714	$14.95	$13.35	$11.70
Lightning™	WC-7716	$24.95	$22.35	$19.70

Retractable USB Multi Charger Kit

Charge a multitude of different phone or media player devices from any USB port and eliminate the need to cart a mains powered adaptor around. Ideal for students, business people or travellers. Suits just about everything, including PDAs and cameras. 15 adaptors included in the kit, covering the following models and more:

- 30 pin connector
- Motorola V998, T191, V66, V3(i)
- Blackberry
- Nokia 8210, 6101
- Samsung A228, D800, A460
- Sony Ericsson T28, K750
- LG8080, KG800
- iPod®, Nano and iPhone®
- Palm T5, Treo, 650, 700, 700W, 700p

	Cat.	Qty 1+	Qty 5+	Qty 10+
	XC-3510	$19.95	$17.70	$15.70

LIGHTNING™ ADAPTORS & LEADS

Lightning™ Plug to 30-Pin Apple® Socket Adaptor

NEW 2013

A range of adaptors suitable for connecting the iPhone 5 and other Apple® devices using the new Lightning™ connector to peripherals that use the 30-pin Apple connector such as iPhone docks, chargers, and more.

Note: This Adaptor is intended for charging and syncing only.

WC-7727

Back view

WC-7726

	Cat.	Qty 1+	Qty 3+	Qty 6+
Adaptor	WC-7726	$14.95	$13.35	$11.70
Lead	WC-7727	$14.95	$13.35	$11.70

USB Charge and Sync Lead to suit Lightning™ Socket

Suitable for the New Generation of Apple® devices. A Lightning™ connector lead for charge or data sync with units such as iPhone 5® and iPad mini® to any USB port.

NEW 2013

Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1m	WC-7728	$14.95	$13.35	$11.70

Micro-B USB to Lightning™ Plug Adaptor

Allows your iPhone 5 or other Apple device with a Lightning™ connector to be charged or synched with your computer with a micro-b USB cable.

- Dimensions: 32(W) x 17(D) x 7(H)mm

Note: This Adaptor is intended for charging and syncing only.

NEW 2013

Back view

	Cat.	Qty 1+	Qty 3+	Qty 6+
	WC-7729	$14.95	$13.35	$11.70

iPhone® Battery Backup Module

NEW 2013

This compact unit provides emergency power for your iPhone 5® and similar products. It is fitted with a lightning connector for your phone and a USB plug for the module to be recharged itself. This product will give you, on average, another 8 hours of use (depending on application.)

- Stylish looking
- Compact 73(L) x 69(W) x 10(D)mm. That's small!

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3605	$34.95	$31.45	$27.90

MAGNIFIER FOR iPHONE®

50x Magnifier with cover to suit iPhone® 4/5

NEW 2013

A handy iPhone® magnifier for technicians, jewellers, and model car/plane builders. Simply attach it to the back of your iPhone® to see a greatly magnified view of objects on your phones screen.

Included are two brackets, one suitable for iPhone® 4s and one suitable for iPhone® 5.

iPhone® not included

- Magnification: 50x
- Dimensions: 117(L) x 61(W) x 11(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	QM-3516	$19.95	$17.70	$15.70

DIY FOR iPOD®, iPHONES®

Tool Set Repair Kit for iPhone®

A cracked screen or dead battery is not the end of your iPhone®. Learn how to repair it yourself and save hundreds of dollars. This useful kit comes with screwdrivers for opening the iPhone 3® or iPhone®4/4s as well as iPad®. There are screwplates for the iPhone®3 and iPhone 4® so you can keep track of which screw goes where for quick re-assembling. A plethora of step-by-step tutorials are available on YouTube®.

Contents
- Scraping Plastic Film
- Special tool for capacitive screens
- 0.8 screwdriver (for iPhone 4®/iPhone 4s®)
- 1.2 screwdriver (for iPad®)
- 1.3 screwdriver (for iPhone 3® and parts of iPhone 4®)
- Guitar pick opening tool
- Plastic prying tool

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2112	$12.95	$11.35	$10.35

19 Piece Repair Kit for iPhone®

NEW 2013

All the tools you need to take apart your iPhone® for DIY repair jobs, organized neatly inside a compact storage case.

Includes:
- 13 x 4mm bits:
  - PH00, PH0, PH1
  - SL1.5, SL2.0
  - Torx: T4, T6, T8, T10
  - Pentalobe: 0.8, 1.2
  - HEX1.5, HEX2.0
- Plastic Prying Tools
- Guitar Pick Opening Tool
- Tweezers
- Suction Vacuum Opener
- SIM Card Ejector Pin Tool

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2113	$29.95	$26.90	$23.70

SOLAR CHARGERS

Solar Charger for Mobile Devices

A handy gadget that charges your mobile phone, iPods® and other electronic devices with its solar panel and built in Li-ion battery. The integrated LED light panel illuminates your tent, path, etc. A perfect companion for your outdoor adventures!

LED light panel

- Solar panel: 0.44W, 17% efficiency
- Li-ion battery: 3.7V 1000mAh
- Input voltage: mini-USB, 5V
- Output voltage: USB A type, 5V 500mA
- Solar charging time: 12Hrs
- Light on: more than 5 hours (full charge)
- LED light Lumens: 60LM
- Connectors: Sony Ericsson, Nokia, iPhone®/iPod®, Samsung, USB Mini B
- USB Micro B lead included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3591	$34.95	$31.45	$27.90

Outdoor USB Solar Charger

Charge portable devices wherever the sun shines using this handy USB solar charger. Supplied in a heavy duty nylon pouch the solar panel outputs 5 volts via a USB port located on the side. Using the included lead and adaptor set you can charge portable devices such as media players and Smartphones or use an existing USB charge cable for any other devices. The adjustable elastic strap and snap lock clips on the pouch allow you to attach the panel to your backpack, tent, or bike so you can charge on the go and the embedded LED display will show you the charging status.

- Dimensions: 250(H) x 170(W) x 15(D)mm
- Output Voltage: 5VDC
- Peak Current: 500mA

Adaptor Plugs Included:
- USB Mini 5pin
- iPhone®/iPod®
- Sony Ericsson
- Samsung
- Nokia 2mm
- USB Micro B

iPhone® not included

1 YEAR WARRANTY

RELATED PRODUCT...
See full range of Travel Adaptors on page 284

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3593	$44.95	$40.45	$35.90

Solar Mobile Charger

A pocket sized solar panel with a built-in lithium battery that you can charge your gadgets anytime, anywhere. Charge via direct sunlight or by connecting it to a power socket in your car or home. Stored power can be used to recharge a range of different types of mobile phones, PDA's, MP3 players or digital cameras. Compact and convenient design featuring two USB sockets to charge many USB compatible devices and a nifty LED light function in case you get caught out in the dark. The perfect travel companion for camping, hiking or when out and about.

- Variable output voltage
- Output power: 3W, 1A max
- Open circuit voltage: 4.5 - 5V or 5 - 9V
- Lithium battery: 2000mAH
- Included plug-in cigarette lighter adaptor
- Weight: 216g
- Dimensions: 125(L) x 87(W) x 24(H)mm

TECH TIP!
Solar Chargers and Power Banks on this page don't include Lightning™ connector to charge an iPhone®5. See page 392 for Lightning™ adaptors

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	MB-3598	$54.95	$49.45	$43.90

POWER BANKS

Portable Power Bank - 2600mAh

Never be caught out with a flat phone battery. Simply connect your phone or other mobile device for a quick charge so you can make that urgent call. It features a USB charging port and lead with 3 connectors for charging all variety of smart phones, USB devices and some tablets. The device itself can be recharged with the supplied micro USB connector.

Specifications	
Battery	2600mAh Li-ion
Output lead with 3 connectors included	Mini-USB, Micro-USB, Apple® compatible connector
Rated input	5VDC
Rated output	5VDC at 1A
Carrying pouch	included
Dimensions	76(L) x 33(W) x 29(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 10+	Qty 20+
	MB-3642	$34.95	$31.45	$27.90

Portable Power Bank - 5000mAh

NEW 2013

If you're no stranger to your gadgets running out of juice throughout the day, you should consider investing in backup power. This portable power bank has a huge 5000mAh capacity and outputs up to 2A so it can charge an iPad® without issue. It features a 2A and 500mA USB port which allows you to charge 2 devices at once. Numerous connectors are included for charging all the major brands. Recharge via USB.

Specifications	
Included connectors	Apple® connector, micro USB, mini USB & more
Output voltage	5V
Max output current	2A
Includes	2 x USB charging ports
Dimensions	109(L) x 76(W) x 16(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 10+	Qty 20+
	MB-3644	$59.95	$53.95	$47.90

BATTERY CASE FOR iPHONE®

Backup Battery Case to suit iPhone 4/4S®

NEW 2013

An ultra thin protective case for the iPhone 4/4S® that is fitted with a rechargeable Li-Po external battery to give your phone more power for those hectic days. The battery almost doubles battery life for your phone and the hard shell casing will protect it from most knocks and bumps. The device will smartly drain the battery case first before switching to the phone's battery. It also features a kick stand for hands free media viewing.

Note: iPhone® not included

Specifications	
Battery capacity	1800mAh
Colour	Black
Talk time	9 hours (approx)
Standby time	220 hours (approx)
Internet use	7 hours (approx)
Dimensions	125(L) x 60(W) x 7(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3599	$24.95	$22.35	$19.70

Back-up Battery Case to suit iPhone 5®

NEW 2013

Eliminate the short battery life of the iPhone® 5 with this battery extender. Your iPhone 5® simply clips into this special battery case and will provide an extra 300 hours of standby time. It does not interfere with the iPhone® camera, headphone or charging sockets.

- Acts as a protective case
- You will hardly notice the extra thickness
- Battery capacity 1800mAh
- Colour: Black
- Charge time: 6 hours
- Additional talk time: 8 hours (approx)
- Standby time: 300 hours (approx)
- Dimensions: 135(L) x 60(W) x 15(D)mm

Note: iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	MB-3695	$39.95	$35.90	$31.90

Speaker Docks & Portable Speakers

ACCESSORIES FOR iPOD®, iPHONE® & iPAD®

Mic and Control for iPhone®

Simply connect this adaptor to both your iPhone® and headphones. Someone calls during a song, with its built in mic you can answer your call without even having to take your headphones off! Simply click to answer your call or to play/pause the music. Features In line microphone and phone call control, music playback and a 3mm headphone jack.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2098	$9.95	$8.75	$7.75

Speaker with Aux in for iPod® Shuffle (Gen.2)

Specifically designed for the 2nd generation iPod® Shuffle, this stereo speaker is still ideal for use with any iPod® or MP3 player. Its 1W+ 1W output power produces quality sound, and its protective cover makes it fantastic for use at the beach.

- Requires 4 x AAA batteries
- Size 190)W) x 60(H) x 20(D)mm

	Cat.	Qty 1+
	XC-5189	$5.95

Neck Strap with Earphones - Suits iPod® Nano

Fit your iPod® Nano into this compact, lightweight holder, hang it round your neck and plug-in the neatly stored headphones for true hands free action!

- White in colour, and compatible with iPod® Nanos.

iPod® not included

	Cat.	Qty 1+
	AR-2069	$3.95

Wireless Remote Control for iPod® & iPod® Mini

Simply plug the receiver module to your iPod® or iPod® Mini's earphone jack and control the play list or slideshows up to 10 metres away. Utilise a 3.5mm stereo lead (not included) and connect the receiver module to you Hi-Fi unit or external amplified speakers and have full remote control over your sound source.

- Remote requires 1 x CR2032 battery (included)

iPod® not included

	Cat.	Qty 1+
	AR-3119	$6.95

NEAR FA® SPEAKER

NEW 2013

Near Field Audio Wireless Speaker

Simply place your Smartphone on top of this speaker to wirelessly amplify the music playing from its loudspeaker, without the need for any configuration or connection whatsoever. This is made possible by using NearFA® (Near Field Audio) technology, which also uses far less power compared to its Bluetooth® and Wi-Fi counterparts. The speaker will last up to 10 - 15 hours using 3 x AA batteries (not included) and with no extra drain on your phones battery life when playing music. It can also be powered via USB and a 3.5mm audio-in socket is provided for use with other audio devices.

Suitable with iPod Touch® (4th generation), iPhone® 3/GS, iPhone® 4/4S, iPhone® 5, Samsung Galaxy SII/SIII and many more...

- Frequency response: 100Hz - 20kHz
- Output: 2W x 2 RMS, 1 x bass booster
- Requires: 3 x AA batteries (not included)
- 5VDC power in
- 3.5mm audio-in jack
- Dimensions: 155(L) x 71(W) x 38(H)mm

iPhone® not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5220	$39.95	$35.90	$31.90

SPEAKER DOCKS FOR iPOD®

Portable Stereo Speakers/Charger with Docking Station for iPhone®/iPod®

Portable and versatile, these speakers are suitable for use in your bedroom, study or on the go. Dock your iPhone®/iPod® into the docking station to charge and enjoy high quality stereo sound from your device. It even has a 3.5mm audio jack for use with all your other favourite personal media devices. Completely portable, the docking cradle tucks neatly into place to avoid damage and will operate on 4xAA batteries. An AC/DC adaptor has also been included.

1 YEAR WARRANTY

- Apple licensed product
- Dual 2" full range drivers
- Total output power (RMS @ 10% THD): 4W
- Power per channel: 2W
- 3.5mm jack for use with personal media players than an iPhone®/iPod®
- Accepts 4 x AAA batteries for (does not charge iPhone®/iPod® in this mode)
- AC/DC adaptor for standalone charging
- Dimensions: 256(W) x 115(H) x 70(D)mm

iPhone® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-1889	$69.95	$62.95	$55.95

2.4GHz Wireless Stereo Speaker System with Apple® Dock and Induction Charger

NEW 2013

Take your music with you, in and around your home using our 2.4GHz wireless speaker system. The digital transmission provides crystal clear sound up to a range of 30m and are powered by a built-in Li-ion battery that last up to 4 hours. To charge, simply place them on the induction pads on the base unit. Each speaker has its own volume control, left/right channel select and on/off switch. Operate as a pair for stereo sound; or use as standalone speakers to listen to music in two separate rooms. Dock your iPhone® or iPod® to the base unit to charge, play songs and to control by remote control. An AUX jack is provided for other personal audio players. It's perfect for entertaining guests, use out in the garden or shed, inside the garage or throughout the house.

- 2.4GHz wireless speakers
- Dock for iPhone®/iPod®
- Range: up to 30m
- 4 hours play time
- Satellite speakers with induction charge
- PC and Mac compatible
- Remote control
- Wireless USB transmitter, plays audio from PC
- Speakers have separate controls: volume, on/off, left/right, etc.
- 2 x 3W speakers
- Induction charging of speaker
- Dimensions: Base Unit: 335(L) x 148(W) x 28(H)mm / Speaker: 120(L) x 107(W) x 129(H)mm

iPhone® not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1887	$169.00	$151.95	$134.95

PORTABLE SPEAKERS

USB Portable Speaker

NEW LOWER PRICE

1 YEAR WARRANTY

It's lightweight and portable and connects to MP3 players, Smartphones, computers or any other audio source to listen to all your favourite tunes in great sound quality. Features turbo bass technology with 2.1 subwoofer and illuminated blue LED volume control. Supplied with a rechargeable Lithium-ion battery, USB charger and 3.5mm stereo audio cable.

- Maximum power: 12W
- MAC and PC compatible
- Speaker dimensions: 210(L) x 60(W) x 50(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Speaker	XC-5197	$24.95	$22.35	$19.70
Spare Li-ion Battery	XC-5195	$6.95	$6.25	$5.50

MONTHLY SPECIALS

Look out for our monthly promotions in store now!

Mini microSD Card Speaker

MORE INFORMATION...
Now includes USB port and FM Radio

Take music wherever you go with this small rechargeable active speaker. It can play MP3 files off a MicroSD card or a USB Flash drive, it can also accept line inputs from devices such as iPod®, iPad®, laptops or any audio device with a 3.5mm line out. Other features include a built-in FM radio scan and a line out to act as a personal MP3 player to your earphones. Charges via USB.

Specifications:
- Output: 3+3WRMS
- Frequency response: 150Hz - 18kHz
- S/N ratio: 80dB
- Dimensions: 74(L) x 50(W) x 52(H)mm

iPod® not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
Speaker	XC-5176	$39.95	$35.90	$31.90
Spare Li-ion Battery	XC-5195	$6.95	$6.25	$5.50

Rechargeable Travel Speaker

A personal entertainment system with excellent sound reproduction. Listen to your music in 3D stereo sound from your iPod®, iPhone®, iPad®, Smartphone®, MP3 player or computer, or play MP3 or WMA files directly from a USB flash stick or SD memory card. It also features an FM radio with 30 channel favourites, colour LCD screen, volume control, equaliser, calendar, alarm clock, headphone output and an adjustable auto power off. The li-ion battery can be recharged via the USB port of a computer and a full charge provides about 8 hours of listening time. Supplied with 3.5mm audio cable, USB power cable, and Li-ion battery.

- Supports SD, SDHC cards up to 32GB (MMC/TF with adaptor)
- Equaliser modes: Normal, pop, classical, rock, gentle, jazz, bass
- Replay and Repeat modes
- Output: 2.5W x 2.5W
- Speakers: 2 x 1.5" with 40 x 70mm passive subwoofer
- Frequency response: 200Hz to 20kHz
- Sensitivity: 88dB
- Dimensions: 217(L) x 67(H) x 35(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Speaker	XC-5175	$49.95	$44.90	$39.90
	Cat.	Qty 1+	Qty 3+	Qty 6+
Spare Li-ion Battery	XC-5195	$6.95	$6.25	$5.50

BLUETOOTH® SPEAKERS

Bluetooth® Receiver for iPod®/iPhone®

NEW 2013

This tiny Bluetooth® wireless audio dongle simply plugs into a suitable iPhone® or iPod® speaker dock to give you quality amplified sound from your Bluetooth® fitted phone (Blackberry®, iPhone®, Samsung, HTC etc.) from up to 20m away. This means you can have your phone beside you at arms length instead of being plugged directly into your speaker dock.

- Fitted with 30 pin Apple® connector
- Reasonably Hi-Fi

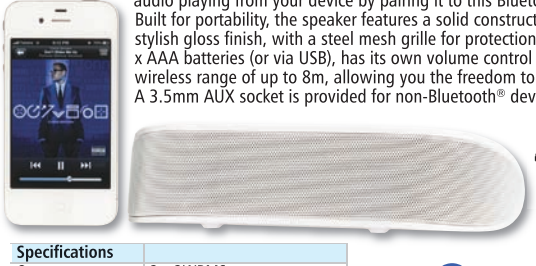
RELATED PRODUCT...
Bluetooth® Transmitter & Receiver see page 398

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-2084	$34.95	$31.45	$27.90

Portable Wireless Bluetooth® Speaker

The audio reproduced by the speakers inside your phone, tablet or laptop computer doesn't usually sound too great. Amplify and improve the quality of the audio playing from your device by pairing it to this Bluetooth® speaker. Built for portability, the speaker features a solid construction and a stylish gloss finish, with a steel mesh grille for protection. It runs on 4 x AAA batteries (or via USB), has its own volume control and a wireless range of up to 8m, allowing you the freedom to move about. A 3.5mm AUX socket is provided for non-Bluetooth® devices.



NEW 2013

Specifications	
Output	2 x 2WRMS
Wireless frequency	2.4GHz - 2.480GHz
Range	up to 8m
Requires	4 x AAA batteries
Accessories	1m AUX cable, 1m USB cable
Dimensions	211(L) x 56(W) x 53(H)mm

Note: iPhone® not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5205	$39.95	$35.90	$31.90

Mini Portable Bluetooth® Speaker System

NEW 2013

Take your music anywhere with this rechargeable Bluetooth® mini portable speaker system. Don't let its lightweight design and size fool you: It produces quality sound! With Bluetooth connectivity and a 3.5mm auxiliary port for universal connection, you simply connect your device and begin listening to your favourite music. This handy little device is simple, convenient and great for any situation in which music is required. Includes USB charge cable & 3.5mm Aux-in cable

- Bluetooth® function with chipset CSR/BC57F687A05
- Stream music wirelessly from any Bluetooth® music player
- Answer phone calls wirelessly from any Bluetooth® Smartphone
- Works with iPad®, iPhone®, iPod touch®, Android devices and more
- Built-in rechargeable battery

Note: iPhone® not included

Specifications	
Charge time	500mA/5 hrs
Audio output power	2 x 2WRMS
Frequency	100Hz-20kHz
S/N	=70dB
Dimensions	53(L) x 168(W) x 38(H)mm

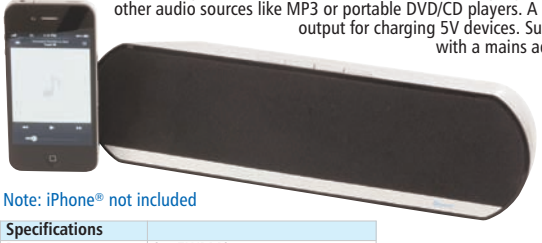
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5207	$59.95	$53.95	$47.90

Bluetooth® Speaker System

NEW 2013

Never miss a beat with this Bluetooth® wireless speaker system! A must have for entertaining or just chilling out, this compact player with a fresh, sleek design is powerful and easy to use. It features advanced Bluetooth®; V2.1 audio, EDR (Enhanced Data Rate) technology and digital signal processing to deliver superior sound quality, and two high-quality acoustic drivers and passive radiator to create a wide audio spectrum and stereo sound. The result: Perfect sound quality every time! This system is compatible with Smartphones and Tablets, as well as mobile phones, computers, iPod® or any other Bluetooth® device. Built-in auxiliary input for other audio sources like MP3 or portable DVD/CD players. A USB output for charging 5V devices. Supplied with a mains adaptor.



Note: iPhone® not included

Specifications	
Power output	2 x 5WRMS
Driver	2" full range and passive radiator
Frequency response	50Hz - 20kHz
Signal to noise ratio	= 80dB
Separation	= 50dB
Power input	DC-9V/2A
Weight	850g
Dimensions	300(W) x 80(H) x 80(L)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5206	$69.95	$62.95	$55.95

Rechargeable Waterproof Bluetooth® Speaker

NEW 2013

A rugged, fully waterproof speaker for summer days at the beach, river, or when you're camping. Simply pair it with your Bluetooth enabled Smartphone and you can play back music with ease. You can even have phone conversations through the speaker thanks to the in-built microphone. For those who are without Bluetooth, there's a 3.5mm aux jack at the rear. Black shock resistant rubberised edges and handles make this a perfect companion for outdoor activities. Recharge with the supplied mains adaptor and USB cable.

- Fully waterproof shock resistant design
- Integrated full range stereo speakers
- Stainless steel speaker grill cover
- Built in rechargeable Lithium battery 7.4V 1800mAh 10 hour play or talk time
- 3W class D amplifier
- Built in mic with noise cancelling
- Hands free speakerphone
- Dimensions: 230(L) x 102(W) x 67(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5208	$119.00	$106.95	$94.95

Wireless Networking

WIRELESS NETWORKING

802.11n 150Mbps Travellers Wireless Access Point

NEW 2013

A compact wireless access point designed for the frequent traveller or business person. Most hotels/motels around the world provide Internet directly to the rooms via a fixed Ethernet port, usually near a desk. It's a huge inconvenience if you want access elsewhere in your room or to share your connection with others. Not anymore. Simply connect this access point to the port provided in your room using a Cat5 cable, hook it up to a power source and voila you now have wireless Internet access.

Wi-Fi Features:
- Standards: IEEE 802.11n/IEEE 802.11g/ IEEE 802.11b
- Transmission frequency: 2.4 to 2.4835GHz
- Transmission speeds (rates with automatic fallback):
  - 11n: Up to 150Mbps (dynamic)
  - 11g: Up to 54Mbps (dynamic)
  - 11b: Up to 11Mbps (dynamic)
- Modulation type: DBPSK/DQPSK/CCK/OFDM
- Wireless security: WPS, 64/128bit WEP, WPA/WPA2 and PA-PSK/WPA2-PSK (TKIP/AES)

Note: Laptop and Cat5 cable not included

Hardware Features	
Interface	1 x 10/100Mbps LAN port
LED indicator	AP/client/LAN
Antenna type	internal omni-directional antenna
Power supply	5V DC/500mA
Weight	80g
Dimensions	74(L) x 27(W) x 14(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
YN-8332	$29.95	$26.90	$23.70

Universal Wi-Fi Extender

NEW 2013

Eliminate Wi-Fi dead zones and extend the range of existing 802.11b/g/n networks with ease. After a one-off setup using a computer just plug the unit into an existing power point in your home and within seconds it will detect available Wi-Fi networks and establish connection. A signal strength LED is featured to help you locate the best position for optimal Wi-Fi coverage and a WPS (Wi-Fi protected setup) button for quick and easy configuration of the SSID and security key. Compact design for an unobtrusive installation.

- 1 x 10/100Mbps Ethernet LAN port
- Wi-Fi strength LED indicator
- WPS button
- Includes RJ45 network lead for setup
- Dimensions: 76(H) x 47(W) x 41(L)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
YN-8360	$69.95	$62.95	$55.95

Ceiling Mount Wi-Fi Extender Access Point

NEW 2013

A high-speed solution for broadening coverage and eliminating dead spots in a home or office Wi-Fi setup. It is fully compatible with 802.11n protocol so can provide speeds up to 300Mbps and functions as an access point and repeater at the same time. One-press wireless protected setup makes setup a cinch! You can power it with a 5VDC power supply and through Ethernet port with power over Ethernet for installations far away from a mains connection.

- WEP encryption 64/128bit
- WPA pre-shared key(WPA-TKIP, WPA2-AES, WPA/WPA2 mixed)
- WPA radius
- Hidden SSID
- Multiple SSIDs, up to 5 sets with wireless group and security
- AP isolation
- MAC address filtering
- Browser based configuration
- 5VDC power supply included
- Dimensions: 105(L) x 105(W) x 46(H)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
YN-8362	$99.00	$88.95	$78.95

Wi-Fi Bridge for Smart TVs and Media Centres

NEW 2013

Allows you to add wireless capability to your array of home entertainment devices. For example your Smart TV, game console, media player, or Blu-Ray player that have Ethernet only could plug into this device allowing them to connect to your Wi-Fi router for internet connectivity. It saves you the hassle of needing to run lots of long Ethernet cables through the house. Just press the WPS button on the bridge and on your Wi-Fi modem for quick wireless syncing.

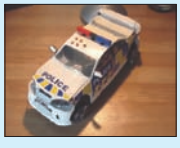
- 801.11b/g/n compatible
- 5 x 100Mbps ports
- Supports WEP 64/128bit, WPA, and WPA2
- WPS button for quick installation
- Dimensions: 127(W) x 30(H) x 96(D)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
YN-8361	$59.95	$53.95	$47.90

Cop Car

Makers Name: Mostafa Amer
Location: New Zealand

I recently built a model Cop car from scratch - specifically the Holden Commodore. I made the body and bumpers from ice cream containers and the rest of the structural parts form stuff lying around the garage. The car has all the bells and whistles that you would have in any realistic model car however the things that make this car quite special are the added electronic features.



For more details scan the QR code or go to www.jaycar.com.au/makers

TECH TIP!

WIRELESS HIGHSPEED NETWORKING

Upgrade your wireless network to the latest high speed wireless technology & increase data throughput at the same time. These impressive devices use MIMO technology to significantly improve transmission range & minimise transmission errors. They are backward compatible to 802.11b & 802.11g systems & support Windows (98SE, ME, 200, XP, & Vista, 7), Linux & Mac® systems.

- 802.11n, 802.11g, 802.11b protocols
- 300Mbps data transfer rate
- Supports infrastructure and ad-hoc modes
- 64/128-bit WEP data encryption

WI FI STANDARDS

Wi-Fi Standard Type	Protocol	Frequency (GHz)	Throughput (Typ-Mbps)	Data Rate (Max-Mbps)	Typical Range Indoors(m)	Typical Range Outdoors(m)
A	802.11a	5.15-5.875	23	54	30	100
B	802.11b	2.4-2.5	4	11	30	100
G	802.11g	2.4-2.5	19	54	35	110
G+	802.11g+	2.4-2.5	35	125	35	110
MIMO	802.11g	2.4-2.5	50	125	50	130
N	802.11n	2.4	74	300	70	160

ADSL2+ MODEMS / ROUTERS

Single Port ADSL2+ Modem

An excellent and affordable ADSL2+ modem for those who simply want their Internet connection up and running with minimal fuss. It supports PPPoE, PPPoA and bridging mode for connection to a multi-port router if you want to expand your network in the future. There is a built-in firewall to give protection against malicious attacks and IP address filtering to stop certain users on the network from accessing the web. Setup is straightforward with the local web management tool. Port forwarding is included to ensure you can play all your favourite games and applications without a problem. The unit comes with a splitter/filter to allow you to use the Internet and phone from the same phone socket.

Connection type:
- PPPoE
- PPPoA
- Static IP
- Dynamic IP
- IPoA
- Bridge

Virtual Server:
- Single Port Forwarding
- Port Range Forwarding
- Port Trigger
- DMZ Host
- UPnP

Routing table:
- Routing Table
- Static Routing

Security:
- Client Filtering
- IP Filtering
- MAC Address Filtering
- Local Web Management
- Remote Web Management
- Credential
- IPSec
- WAN Ping

System tools:
- Time Setting
- Dynamic DNS
- Backup/Restore
- Firmware Upgrade
- Restore to Factory Default Setting
- Reboot
- Login Password Modification
- Syslog

Features
- 1 x RJ45 port
- 1 x USB port for USB access to the modem/internet (able to use two computers one with Cat5 cable and one with the supplied USB male to male cable)
- 1 x splitter/filter
- Easy setup wizard
- Dimensions: 50(L) x 95(W) x 25(H)mm

1 YEAR WARRANTY · NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8316	$34.95	$31.45	$27.90

Wireless ADSL2+ Modem Router with 4 Ports

Combining 4 x 10/100Mbps LAN ports with the speed and freedom of 802.11n wireless connectivity, these modem/routers give you the flexibility you need for your home or office network. The wireless switch allows speeds of up to 300Mbps on YN8318 and 150Mbps for YN8317 and is backward compatible with 802.11g and b clients. A variety of connection methods to support most ISPs are included as well as a multitude of advanced features to ensure a smooth web experience. MAC address and IP address filtering are available for controlling which users on the network can access the web, a built-in firewall which will protect against online threats and QOS bandwidth to minimise the chance of certain users hogging available network bandwidth. It uses two antennas, which can be detached and upgraded with more powerful antennas (available separately) for better throughput and signal strength.

1 YEAR WARRANTY YN-8317 · 5 YEAR WARRANTY YN-8318 · NEW 2013

Features:
- ADSL2+ Modem, Wireless-N Router, 4-Port Switch, and Firewall
- Complies with IEEE 802.11n (Draft 2.0), IEEE 802.11b, and IEEE 802.11g standards
- MIMO technology utilizes reflection signal to greatly increase the transmission strength and range
- Supports up to 6 times the transmission rate and double the range of 802.11g products
- Wireless switch speed: 300Mbps (YN8318) , 150Mbps (YN8317)
- Supports Bridge, PPPoE, PPPoA, IPoA, and MER connections
- Supports WMM for improved audio and video signals
- Supports 64/128-bit WEP, WPA, and WPA2 security standards
- Supports 802.1x security authentication standard
- RJ11 splitter with filtering included
- Supports four 10/100Mbps Auto-Negotiation Ethernet LAN ports
- Supports ATM Forum UNI 3.0, 3.1, and 4.0
- Setup wizard for fast and easy configurations
- WPS (PBC and PIN) enabled device
- Supports remote/local web management
- Supports wireless roaming technology for highly efficient connections
- Supports SSID stealth mode
- MAC address access control for up to 30 entries
- Supports Auto MDI/MDIX
- Provides a router system log
- Supports MAC address filtering, IP address filtering, URL filtering, and NAT rules
- Supports UPnP and DDNS
- Administration interface supports Firefox 1.0, IE5.5 or above
- Supports DHCP server/client
- Supports SNTP
- Supports virtual server, DMZ host
- Supports wireless channel auto-selection
- Supports WDS
- Wireless channel auto-selection
- Supports LAN access control over Internet connection
- Ready for broadband TV boxes
- Supports QoS bandwidth control
- Detachable antennas
- Includes Cat5 cable and 2 x telephone cables

YN-8318 shown

	Cat.	Qty 1+	Qty 3+	Qty 5+
150Mbps NEW	YN-8317	$59.95	$53.95	$47.90
300Mbps	YN-8318	$84.95	$76.50	$67.95

High Power Wireless Outdoor Router/Range Extender 802.11n

Need a long range, building to building wireless network? With a wireless power of 600mW this unit has excellent point to point range with the installed internal directional antenna. If omni directional transmission is required then you can connect an external antenna (sold separately) via the SMA connector at the base. Though designed for installation outside, please ensure that it is installed under an eave in position where it will never get wet. Features PoE (Power over Ethernet - which means you can send the power over the network cable to make it easier to get power to the router).

- LAN port 10/100 (featuring PoE)
- PoE power injection adapter included
- 12VDC 1A Power supply included
- Antenna Internal Directional 9dBi
- High data rate - up to 150Mbps
- Auto rate fallback - in case of obstacles or interference
- Supports point-to-point and point-to-multi point bridge function
- Supports WDS (Wireless Distribution System) repeater mode
- Supports AP Client mode
- Supports WEP, WPA, WPA2, AE2, 802.1x authentication
- Supports WPS (Wi-Fi Protected setup) function
- Supports Web-based configuration
- Supports operation modes: Gateway, Bridge, Wireless ISP
- Supports Low Noise Amplifier (LNA)
- Supports VPN pass through PPPoE, PPTP, and L2TP connections
- Dimensions 225(H) x 77(W) x 59(D)mm

1 YEAR WARRANTY · NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8330	$99.95	$89.95	$79.95

Modified Tempmaster Fridge Controller MK II

Makers Name: Chris Dixon

When the thermostat on the family fridge stopped working, a new thermostat was not available, and new fridges are either slightly too big for the hole in the kitchen, or ridiculously tiny. So the Jaycar kit seemed the obvious solution. But turning on a light switch in the house or cooking in the microwave made the relay unworkable, a circuit modification was needed...

For more details scan the QR code or go to www.jaycar.com.au/makers

Wireless Networking & Dongles

802.11N HIGH SPEED WIRELESS NETWORKING

802.11n Wireless-N Broadband Router with 4 ports

Expand your network with ease, reliability and security. A Wireless-N router with a wireless access point function combined with the flexibility of a 4-port switch, and a built-in firewall. Setup is streamlined through the configuration wizard where you can change dozens of settings. The router supports QoS bandwidth control to ensure network performance is not adversely affected by a limited number of high-demand clients. Access control for up to 30 MAC addresses, auto negotiation on 802.11b, 802.11g and 802.11n wireless networks, supports LAN control over an Internet connection, DHCP server/client, supports virtual server DMZ host and many other settings to give you complete control over the functionality of the network.

- Setup Wizard for easy configuration
- Provides up to 3 times the transmission rate and double the range of 802.11g products
- Supports UPnP and DDNS
- Meets 64/128-bit WEP, WPA, and WPA2 security standards
- Supports SSID stealth mode and a MAC address access control

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8305	$44.95	$40.45	$35.90

802.11n Wireless Broadband Router

The device integrates a router, wireless access point, four-port switch, and firewall all in one compact package and employs advanced encryption and packet filtering to protect your network from outside attack. The unit can be managed through a local/remote web browser and is password protected. This is a first-rate unit at an attractive price and is a good choice for SOHOs, and small enterprises.

5 YEAR WARRANTY

- SSID stealth mode and MAC address filtering
- DHCP server & client
- Local/remote web management
- 64/128-bit WEP data encryption
- Virtual server and DMZ host

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8300	$69.95	$62.95	$55.95

TECH TIP!

Which Product Is Right For You?

	Speed	Web Surfing	Email	VoIP	Streaming Music	File Storage & Sharing	Online Gaming	Streaming Video (HD)
FAST	54Mbps	√	√	√				
FASTER	150Mbps	√	√	√	√	√		
FASTEST	300Mbps	√	√	√	√	√	√	√

802.11n 150Mbps Nano USB 2.0 Wireless Network Adaptor

NEW LOWER PRICE

They don't get much smaller than this. Excluding the USB plug, this wireless-N network adaptor measures in at an astounding 5mm wide. It's the ultimate in discrete networking and perfect for the PC, laptop, or netbook.

- USB 2.0
- Transfer rate up to 150Mbps
- Supports 64/128-bit WEP, WPA (TKIP with IEEE 802.1x), WPA2 (AES with IEEE 802.1x)
- Compatible with Windows XP, Vista, 7
- Dimensions: 15(L) x 5(W) x 17(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8309	$19.95	$17.70	$15.70

802.11n 300Mbps Mini USB 2.0 Wireless Network Adaptor

NEW LOWER PRICE

Add 802.11n wireless capability to your computer. Supports transfer speeds up to 300Mbps and is part of the 802.11n standard. A secure, sleek and convenient networking upgrade for the home or office.

- Security:
- 64/128bit WEP encryption
- WPA/WPA2 and WPA-PSK/WPA2-PSK encryption
- Wi-Fi Protected Setup (WPS
- Compatible with Windows, Linux and Mac® OSX
- Dimensions: 58(L) x 26(W) x 9(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8307	$24.95	$22.35	$19.70

High Power Wireless-N USB 2.0 Network Adaptor

Able to reach wireless networks from significant distances with enough signal strength to do what you need. The unit can connect to wireless networks up to 1.5km away.

- Dimensions: 75(L) x 58(W) x 10(H)mm
- Antenna: 172(H)mm

NEW LOWER PRICE

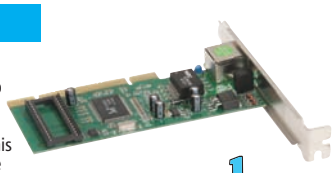
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8306	$39.95	$35.90	$31.90

NETWORK CARDS

1Gb PCI Network Card

Upgrade your home or work computers to blazingly fast gigabit speeds. Transferring large amounts of data can bring the common 100Mbps network to a crawl. This 1000Mpbs Ethernet card will give you the bandwidth you need so you can spend less time copying large files. Compatible with 10/100/1000Mbps speed networks



1 YEAR WARRANTY

	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
	PCI	YN-8063	$14.95	$13.35	$11.70

300Mbps 802.11n PCI-E Wireless Network Card

For PC motherboards lacking in Wi-Fi this is a simple upgrade. Just slot it in a spare PCI-E port for 300Mbps wireless connectivity. The card itself is tiny with dual antennas for the best possible reception and transfer rates.

- Compatible with Windows and Linux
- Plug and play
- Complies with wireless 802.11b/g/n standards
- Wireless security: WEP 64/128, WPA, WPA2
- Dimensions: 65(L) x 43(W)mm (without antenna)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8326	$34.95	$31.45	$27.90

BLUETOOTH® DONGLES

USB2.0 Bluetooth® V4.0 Class 2 Dongle

NEW 2013

Connect a wide variety of popular Bluetooth® devices to your PC, including modern Bluetooth® Low Energy devices.

- Bluetooth® V4.0 Class 2 (also Bluetooth® 2.1 + EDR)
- Supports BLE
- RoHS compliant
- Plug n' Play Windows
- Supported OS: 7, Vista, XP

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Class 2	XC-4956	$19.95	$17.70	$15.70

Bluetooth® Audio Dongle with Transmit/Receive

NEW 2013

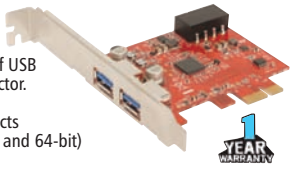
Enables your audio device to transmit or receive wireless stereo audio. If your mobile phone or MP3 player lacks Bluetooth® functionality, just plug your device into this transmitter/receiver with a standard 3.5mm audio lead and you'll have wireless audio capability. Alternatively, if your speaker or headphone lacks Bluetooth® functionality but your phone or MP3 player does this will also allow you to turn the speaker into a wireless Bluetooth® speaker.

Specifications	
Charging time	2.5 hours
Wireless range	10m
Operating time	
Transmitter	10hrs
Receiver	9hrs
Dimensions	45(L) x 33(W) x 7(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-2085	$49.95	$44.90	$39.90

PCI-E USB3.0 Interface Card

Slot this PCI-Express card into your motherboard for 2 x USB 3.0 ports and reach speeds of up to 4.8Gbps, ten times faster than USB 2.0. Transfer times on hard drives and other storage platforms that support USB 3.0 will be significantly quicker. A cost effective upgrade for your desktop PC that will give compatibility for the next-generation of USB products. The card has one Molex power connector.



- Backward compatible with USB 2.0/1.1 products
- Compatible with Windows XP, Vista, 7 (32-bit and 64-bit)
- Dimensions: 85(L) x 66(W) x 15(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4143	$29.95	$26.90	$23.70

NETWORKING SERVERS

MacBook Air®/Ultrabook Network Adaptor with 3 Port Hub

NEW 2013

For MacBook Air®, ultrabooks, netbooks and Tablets where USB ports are sparse or RJ-45 network ports are non-existent (ie. Macbook Air®). Simply connect a network cable to this device and you have a 10/100Mbps network adaptor. It also serves as a 3 port hub to connect peripherals such as a mouse, webcam, and keyboard. Small and lightweight.

- USB 2.0
- Supports Windows 2000/ME/XP/Vista/7, Apple Mac®, Linux (kernel)
- Dimensions: 96(L) x 24(W) x 16(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8407	$19.95	$17.70	$15.70

4 Port USB 2.0 Networking Server

Bypass the complications of device sharing and access your USB devices directly through your network. Plug this device into your router with a Cat5 cable then plug in a USB powered product and computers will be able to see and use your USB gadgets from any computer. Connecting to a wireless router will provide wireless access to USB for those who can't run any Cat 5 in the home or office network. Ideal for printers, scanners or for access to your external hard drives.

- Trouble free installation for XP, Vista, Bonjour for Mac OS X
- Embedded Ethernet 802.3/3u transceiver, compliant with 100BaseTX and 10Base-T PMD level standards
- Supports up to 4 devices at the same time
- Cable not supplied

Please note only a printer device will operate with this HUB in Mac® environment

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8406	$49.95	$44.90	$39.90

USB 3.0 Gigabit Ethernet Adaptor

NEW 2013

Provides a high performance 10/100/1000Mbps Ethernet connection for your laptop, desktop, MacBook® or Tablet. Simple plug-and-play design makes use a breeze.

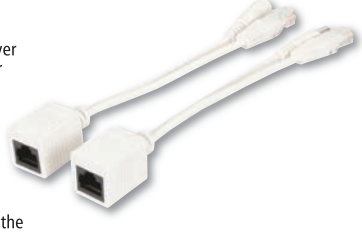
- Supports Windows 2000 /XP/Vista/7/ 8 (32/64-bit), Linux/Android, Mac® OS 10.6/10.7
- Dimensions: 45(L) x 25(W) x 15(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8408	$49.95	$44.90	$39.90

POWER OVER ETHERNET

PoE Passive Kit

PoE (Power Over Ethernet) is a technology that allows transfer of electrical power, along with data, over twisted pair cables. Finding a power supply is a common obstacle in LAN installations: PoE allows you to power wireless access points or other equipment via a Cat 5 cable without the need to have a separate power source available.



- You simply connect a plugpack of the required voltage via the 2.1mm DC connector, then tap it where you need it at the other end.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8410	$19.95	$17.70	$15.70

NETWORK SWITCHES

8 Port 10/100 N-Way Switch

This high performance, 8 port, 10/100 N-Way switch is a cost effective means of increasing network performance by reducing network congestion. The switch achieves this by managing the transmission of data packets on the network and sending them to individual computers instead of broadcasting them to all the computers connected like ordinary hubs do. This packet management enables simultaneous connections to be made between several machines without interfering with data being exchanged on the other connections. This process improves the overall transmission speed and network efficiency to accommodate high bandwidth applications.

- Comprehensive front panel indicators show connection status and activity.
- Power pack included.

Specifications	
No. of Ports	8
Buffer Memory	256kb
Max Cable Length	100 metres
Transmission Speed	10/100Mbps
Standards Compliance	IEEE 802.3x and IEEE 802.3u
Size	159(W) x 103(D) x 27 (H)mm

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8084	$24.95	$22.35	$19.70

8 Port 10/100/1000 N-Way Gigabit Switch

High performance 8 port, 10/100/1000 N-Way switch offers a cost-effective means of increasing network performance and reducing congestion. The switch achieves this by managing the transmission of data packets on the network and enables simultaneous connections to be made between several machines without interfering with data being exchanged on the other connections. The switch also supports auto-negotiation which allows each port to be operated at a different speed while maintaining maximum throughput.

- Comprehensive front panel indicators show connection status and activity.
- Plug pack included.

Specifications	
No. of ports	8
Max cable length	100 metres
Transmission speed	10/100/1000Mbps
Size	180(W) x 103(D) x 27(H)mm

NEW LOWER PRICE

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8087	$64.95	$58.50	$51.95

ETHERNET OVER MAINS POWER

500Mbps Power Line Ethernet Adaptor

NEW 2013

Sometimes the only effective way to share Internet throughout your home or office is through the use of Cat5 cables. Depending on the distance of the run, locations and the number of machines you need to connect, a seemingly simple setup can soon become complex, unsightly and a potential safety hazard. Not anymore. Plug this PLC adaptor into your AC power socket and connect it your modem by a Cat5 cable. To establish a connection on the other end do the same, instead connecting the adaptor to a client device such as your computer. For safety the adaptor includes an overload protector (rated to 20A) and a safety shutter. It's energy efficient, consuming less than 5W under full load and under 1W on standby.

- Supported protocols:
  - LAN: 10/100 Base-TX, IEEE 802.3 az
  - PLC: HomePlugAV 1.1, IEEE 1901
- Data transfer rate:
  - PHY rate: up to 500Mbps
  - TCP rate: up to 95Mbps
  - UDP rate: up to 95Mbps
- Frequency band: 2 - 28MHz, 30 - 68MHz
- Security encryption: 128-bit AES with key management
- Ethernet port: 1-port 10/100 Ethernet
- Group/reset button: yes
- LED: power, Ethernet, PLC link
- Operating temperature: 0 - 40˚C
- Operating relative humidity: 10 - 85% non-condensing
- Power supply: 100 - 240VAC, 50/60Hz
- Power consumption:
  - Full load: < 2.4W
  - Standby mode: <0.5W
- PLC modulation: OFDM (QAM 8/16/64/256/1024, 4096 QPSK, BPSK, ROBO)
- QoS (Quality of Service): Yes
- Max IGMP based IP TV streams: up to 16
- Transmission distance: AC wiring: up to 300m
- Max supported devices in a network group (active/total): 8/16
- Dimension: 67(L) x 56(W) x 31(H) mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8352	$99.00	$88.95	$78.95

Networking Antennas

NETWORKING ANTENNAS

Wireless Networking Antennas

Want to get a longer range in your wireless network? Here's a quick and inexpensive way to improve the range at either your base station or terminal. These antennas are specifically designed for 2.4GHz applications and 802.11 wireless networking is an ideal application. This rubber antenna is a dipole design and features a detachable base. Supplied with a 1.5 metre lead terminated to a reverse SMA connector. Both models supplied with a detachable magnetic base. See our adaptors section for conversions if needed.

Specifications	
Frequency Range	2.4GHz
Impedance	50 ohm
Polarisation	Vertical

Gain	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
5dB	195mm	AR-3273	$19.95	$17.70	$15.70
11dB	380mm	AR-3277	$39.95	$35.90	$31.90

2.4GHz Dipole MIMO Antenna 7dB

Suitable for Wireless N routers to improve signal strength and data throughput. Higher end wireless N routers make use of 3 antennas to maximise the amount of bandwidth the unit can send and receive. Due to a variety of factors, the signal strength and transfer speeds on these routers may not reach their full potential. Upgrading the antennas may rectify any problems you have. This MIMO antenna consists of 3 aerials that can be moved 120º around their axis or rotated 90º so they are perfectly horizontal. It has a 2m cable and magnetic base so you can run it outdoors or into a position to tap the full spacial multiplexing power of your router.

Specifications	
Working Frequency Range	2400 - 2500MHz
Cable length	2m
Gain	7dB
Antenna radiation	Omni-directional
Impedance	50 ohm
Dimensions	295(H) x 85(D)mm

Gain	Length	Cat.	Qty 1+
7dB	2m	AR-3280	$19.95

3G/4G Antennas - 800 to 2100MHz with FME Connector

Using 3G/4G wireless internet in certain areas may require the help of an antenna to boost the signal for a reliable flow of data. Both of these antennas feature a very strong magnetic base so you can fix it to the roof of your car or any other steel surface.

They both support frequency ranges of 850,1800 and 2100MHz. The cable is terminated with an FME connector.

- 5dBi 2m Cable Cat AR-3310
- 7dBi 3m Cable Cat AR-3312

Gain	Cable	Antenna	Cat.	Qty 1+	Qty 4+	Qty 10+
5dBi	2m	300mm	AR-3310	$49.95	$44.90	$39.90
7dBi	3m	960mm	AR-3312	$69.95	$62.95	$55.95

3G/4G 7dBi 850 - 2100MHz Fibreglass Antenna

NEW 2013

Built for maximum range and performance, the antenna is required if you need a reliable 3G/4G signal while on the road. It comes with a 5m cable with FME connector to suit a range of popular wireless devices and mobile car kits.

Specifications	
Supports	GSM, CDMA, UMTS
Frequency	850 - 2100MHz
Gain	7dBi
Cable	5m RG58a/u
Suits	trucks, cars, 4WDs
Dimensions	747(L) x 18(Dia.)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-3311	$99.00	$88.95	$78.95

Wireless Omni Antenna 12dB - 2.4GHz

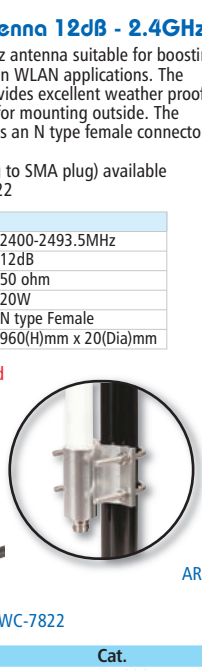
An omni-directional 2.4GHz antenna suitable for boosting signal strength and range in WLAN applications. The fibreglass construction provides excellent weather proofing properties making it ideal for mounting outside. The stainless steel base features an N type female connector.

- Suitable 5m lead (N plug to SMA plug) available separately - Cat. WC-7822

Specifications	
Working Frequency Range	2400-2493.5MHz
Gain*	12dB
Impedance	50 ohm
Power handling	20W
Connector	N type Female
Dimensions	960(H)mm x 20(Dia)mm

*Co-linear (Gain is achieved by vertically stacking 1/4 wave elements)

Note: Mounting pole not included



	Cat.	Qty 1+	Qty 4+	Qty 10+
Antenna	AR-3284	$99.00	$88.95	$78.95
5m Lead N Plug to SMA Plug	WC-7822	$34.95	$31.45	$27.90

Omni-directional Mast Antenna - 3G/4G Cellular

This unit is ideal for enhancing fringe mobile phone reception or 3G/4G internet performance, say a farm or a boat. It provides a very handy 7dBi of gain in any direction. The fibreglass mast (only 69cm high) is supported by an aluminium support piece which includes two sturdy pipe clamps. The cable is factory-terminated with an FME connector. (Other connectors and adaptors available separately.) Very well made.

- Frequency range: 800 to 2100MHz
- Overall antenna length 1.05m approx.

Note: Cable not included 5m extension cable available seperately WC-7820

Gain	Antenna	Cat.	Qty 1+	Qty 4+	Qty 10+
7dBi	1050mm	AR-3313	$89.00	$79.95	$70.95
5m Lead N Plug to SMA Plug		WC-7822	$34.95	$31.45	$27.90

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

*ABN will be required - see our website or Store Manager for further details.

FIND OUT MORE IN STORE

Our staff can offer friendly and expert advice, from product information to electronics solutions; we're here to help.

FME Adaptors

Certain USB modems and 3G capable mobile phones use very small antennas or none at all. Though it's convenient and compact, the full potential of the devices will be limited in areas that yield a poor signal for wireless Internet. This adaptor will stick onto the USB modem or phone case and provide an FME connection for use with 3G antennas (AR-3310 or AR-3312). The process of induction is used to transfer the signal wirelessly to the device's receiver. Adaptors available to suit popular modems.

FME ADAPTOR FOR INDUCTION 3G PLUG Cat. AR-3316
FME ADAPTOR FOR HUAWEI E160/618 PLUG Cat. AR-3318
FME ADAPTOR FOR SIERRA 312U PLUG Cat. AR-3317
FME LOW LOSS EXTENSION LEAD 5m Cat. WC-7820
FME ADAPTOR FOR SAMSUNG S2/S3® Cat. AR-3319
FME ADAPTOR FOR TELSTRA 4G USB MODEM Cat. AR-3320

Adaptor for		Cat.	Qty 1+	Qty 4+	Qty 10+
Induction 3G		AR-3316	$16.95	$14.95	$13.35
Huawei E160/618		AR-3318	$16.95	$14.95	$13.35
Low Loss Extension 5m		WC-7820	$34.95	$31.45	$27.90
Sierra 312u		AR-3317	$16.95	$14.95	$13.35
Samsung S2/S3®	NEW	AR-3319	$16.95	$14.95	$13.35
Telstra 4G USB Modem	NEW	AR-3320	$16.95	$14.95	$13.35

PUNCH DOWN TOOLS

Cat5 Punch-Down Tool / Stripper

LOW-COST. This versatile little tool will strip wire up to 5 to 6.2mm diameter, and doubles as a punch-down tool for 110/88-type terminals, with blade. Made from poly-resin plastic, with steel cutters this lightweight tool could easily fit in the pocket or tool kit.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1738	$8.95	$7.95	$6.95

Cat5 Punch-Down Tool - Adjustable

Has the same functions as the tool above, but has extra features to achieve the perfect 'punch' for different wire sizes. It has a turnable body, adjustable impact pressure and a storage compartment within the handle for holding a spare blade. Frame made of polyacetal resin with orange fibreglass handle. Supplied with 88 blade.

- Spare blades see TH-1743.
- Impact pressure: Low: 10 +/- 2kg (standard wire) High: 15 +/- 2kg (larger wire)
- Length of tool: 152mm.

RELATED PRODUCT...
See Cat5e cable on page 121.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	TH-1740	$22.95	$20.35	$18.35

Blade for Cat5 Punch Tools

This blade suits our punch tool - TH-1740. Made from hardened SNCM-21, its blades are both changeable and reversible, and can be changed by hand, no screwdriver necessary. Blade retaining pressure with in 4-6 kg. One end of each blade has a cutter for that extra-neat termination, the other end is plain for those "linked" blocks.

	Cat.	Qty 1+	Qty 3+	Qty 6+
110 Krone	TH-1743	$17.95	$15.95	$14.35

AUTOMATIC ACCOUNT
For Schools, Government Departments, Public Companies, Radio & TV Stations

NETWORK & CABLE TESTERS

Network Cable Tracer

This tone generator is a highly practical network installation and troubleshooting tool which features a single/multi tone signal, test leads and a 4 conductor modular cable. The signal emitted by the tone generator can be easily traced by the companion probe, even when cables are in a bundle or hidden in punch down blocks or wall plates. The generator can also be used for checking telephone line polarity and status ie. Ring/Busy/Idle. The probe is equipped with an insulated inductive pick up and will amplify the tone signal to an audible level. A LED is also included as a visual indicator. The probe has a volume control and either indicator can be switched off if desired.

- The tone generator measures 115(L) x 60(W) x 30(D)mm.
- The signal leads are 185mm long and terminated with alligator clips.
- The modular lead is 250mm long and terminated a 4 pin RJ12 plug.
- The probe is 205mm long and approximately 35 (H) x 35 (D)mm.
- Both units operate from a 9 volt batteries (sold separately). Use our Cat. SB-2423
- Supplied in a protective zip up vinyl case.

Supplied in a protective zip up vinyl case.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5083	$99.00	$88.95	$78.95

Multi-Network Cable Tester with Pin-out Indication

This multi network cable tester is designed to quickly test UTP/STP/Coaxial/ Modular network cables by manually or automatically scanning the wires for continuity, mis-wiring and polarisation. It will sequence each connection and indicate the connections via two 9-way LED Bar graphs. Cables can be checked before or during installation by using the Remote Terminator (included). This ingenious cable tester also allows ground-testing of shielded twisted-pair cables. Suitable for testing thin ethernet (BNC), 10 Base-T (UTP/STP), 356A, TIA-568A, TIA-568B and Token Ring network cables.

- Note: Not suitable for Live circuits.

Main unit supplied with:
- Active RJ45 terminator,
- 2 x RJ45 to BNC adaptors
- Instruction manual

Dimensions
- Main Unit: 104 x 62 x 26mm (LxWxD)
- Active Terminator: 100 x 30 x 25mm (LxWxD)
- Power Supply: 1 x 9V battery not supplied use our Eclipse Cat. SB-2423

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5076	$39.95	$35.90	$31.90

2 in 1 Network Cable Tester and Digital Multimeter

This innovative device is ideal for network installers or technicians and will allow the user to easily check cable integrity or measure AC & DC voltage, current, resistance, and continuity etc. without needing to carry two separate devices. The unit will check for cable continuity, open-circuits, short-circuits, and cross-connects etc. A remote terminator is included and enables the user to check network cables at a wall jack or patch panel. Supplied with loop back cable, LAN terminator, and multimeter leads.

LAN Tester Specifications:
- LAN tester checks faults
- Mis-wired conductors
- Manual or automatic testing

DMM Specifications:
- 600 volt max input
- 20M ohm resistance
- Diode test
- Max hold
- 200mA AC/DC
- 3.5 digit
- Data hold

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5078	$79.95	$71.95	$63.95

Laptop Power Supply Replacements

MAINS LAPTOP POWER SUPPLIES

1 YEAR WARRANTY

Buying an extra power supply saves the hassle of taking the power supply everywhere you take your laptop. Keep one at the office and one at home. The original power supply on your laptop may have failed, so get a replacement at a fraction of the cost of a genuine part. There's a model compatible with most laptops or netbooks on the market. See our website for compatibility charts.

- **Manual Type:** switch the output voltage to be compatible with your laptop
- **Automatic Type:** models switch voltage automatically depending on the connector used.
  Some models display the voltage on a LED or LCD display.
- All models feature short circuit and overload protection.

IN-CAR LAPTOP POWER SUPPLIES

Keep your laptop or netbook charged on the road. Models to suit most of the mini computers on the market. Check our website for compatibility.

50W - Automatic Cat. MP-3479

Features USB output for charging USB devices.

Specifications	
Input voltage	12VDC
Power output	50W
Output voltages	12-24VDC, 5VDC 1A USB
Output voltage selection	Automatic
Output current	3A
Plugs	7
Dimensions	93(L) x 30(W) x 30(H)mm

90W - Automatic Cat. MP-3324

Specifications	
Input voltage	12VDC
Power output	90W
Output voltages	15 - 24VDC
Output voltage selection	Automatic
Output current	3.75A
Plugs	16
Dimensions	95(L) x 62(W) x 35(H)mm

150W - Manual Cat. MP-3472

Specifications	
Input voltage	12VDC
Power output	150W
Output voltages	15, 16, 18, 19, 20, 22, 24VDC
Output voltage selection	Manual
Output current	6A
Plugs	9
Dimensions	115(L) x 60(W) x 35(H)mm

↗	Wattage	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
	50W	Auto	MP-3479	$34.95	$31.45	$27.90
	90W	Auto	MP-3324	$59.95	$53.95	$47.90
	150W	Manual	MP-3472	$74.95	$67.50	$59.95

MAINS LAPTOP POWER SUPPLIES

40W Netbook - Automatic Cat MP-3477

Specifications	
Input voltage	110 - 240VAC
Power output	40W
Output voltages	12 - 24VDC
Output voltage selection	Automatic
Output current	3A
Plugs	7
Dimensions	172(L) x 69(W) x 40(H)mm

65W Universal - Slimline Suits Ultrabook™ Cat MP-3321

DUE MID 2013

Features USB output for charging USB devices.

Specifications	
Input voltage	100 - 240VAC
Power output	65W
Output voltage	19VDC / 5VDC (USB)
Output current	3.15A / 1A (USB) Output
Plugs	7
Dimensions	113(L) x 56(W) x 15(H)mm

70W Universal - Automatic Cat MP-3320

Specifications	
Input voltage	100 - 240VAC
Power output	70W
Output voltages	8.4 - 24VDC
Output voltage selection	Automatic
Output current	4A
Plugs	16
Dimensions	110(L) x 52(W) x 25(H)mm

90W Universal - Manual Cat MP-3476

Specifications	
Input voltage	110 - 240VAC
Power output	90W
Output voltages	12 - 22VDC
Output voltage selection	Manual
Output current	6A
Plugs	9
Dimensions	150(L) x 58(W) x 37(H)mm

90W Universal - Automatic Cat MP-3326

Features USB output for charging USB devices.

Specifications	
Input voltage	100-240VAC
Power output	90W
Output voltages	15/16VDC @ 4.74A
	19VDC @ 4.2A
	5VDC @ 2.1A (USB Power)
Output voltage selection	Automatic
Plugs	11
Dimensions	126(L) x 55(W) x 31(H)mm

90W Universal - Slimline Cat MP-3327

Specifications	
Input voltage	100-240VAC
Power output	90W
Output voltage	19VDC 4.73A (suitable for laptops requiring 18-20V)
Plugs	8
Dimensions	94(L) x 67(W) x 17(H)mm

120W Universal - Automatic Cat MP-3328

Features USB output for charging USB devices.

Specifications	
Input voltage	100 - 240VAC
Power output	120W
Output voltages	Automatic selection
Output current	8A
Plugs	13
Dimensions	141(L) x 63(W) x 32(H)mm

120W Universal - Slimline Cat MP-3329

DUE MID 2013

Specifications	
Input voltage	100 - 240VAC
Power output	120W
Output voltages	19VDC / 5VDC (USB)
Output current	5.7A / 2.1A (USB Output)
Plugs	7
Dimensions	123(L) x 75(W) x 19(H)mm

144W Universal - Manual Cat MP-3471

Features USB output for charging USB devices.

Specifications	
Input voltage	100 - 240VAC
Power output	144W
Output voltages/current	15/16 @ 8.5A 18/19 @ 8.0A 20 @ 7.5A 22 @ 6.5A 24 @ 6.0A
Output voltage selection	USB 5V 1A Manual
Plugs	9
Dimensions	180(L) x 63(W) x 40(H)mm

↗	Wattage	Type	Cat.	Qty 1+	Qty 4+	Qty 10+
	40W	Auto	MP-3477	$49.95	$44.90	$39.90
	65W NEW	Fixed - Slim	MP-3321	$49.95	$44.90	$39.90
	70W	Auto	MP-3320	$49.95	$44.90	$39.90
	90W	Manual	MP-3476	$69.95	$62.95	$55.95
	90W	Auto	MP-3326	$79.95	$71.95	$63.95
	90W	Fixed - Slim	MP-3327	$79.95	$71.95	$63.95
	120W	Auto	MP-3328	$89.95	$80.95	$71.95
	120W NEW	Fixed - Slim	MP-3329	$89.95	$80.95	$71.95
	144W	Manual	MP-3471	$119.00	$106.95	$94.95

This colour pricebar denotes a Clearance item - check for specials.

UNINTERRUPTIBLE POWER SUPPLIES (UPS)

TECH TIP!

UPS Backup Time Test Results

Cat No.	Maximum Load VA	W	Internal SLA Battery	Backup Mode Output Waveform	Transfer Time (mS)	Backup Time - Typical Small PC (65W-70W)	Medium PC and LCD Monitor (130W-140W)	Large PC plus LCD Monitor (190W-210W)
MP-5224	600	300	12V/7AHrx1	Stepped Sine Wave	<10	31 mins	11 mins	4.5 mins
MP-5201	650	360	12V/7AHrx1	Stepped Sine Wave	<10	25 mins	9 mins	5 mins
MP-5203	1500	750	12V/9AHrx2	Stepped Sine Wave	<10	94 mins	49 mins	31 mins
MP-5205	650	390	12V/7AHrx1	Stepped Sine Wave	<10	25 mins	9 mins	5 mins
MP-5207	1500	900	12V/9AHrx2	Stepped Sine Wave	<10	94 mins	49 mins	31 mins
MP-5212	1000	700	12V/7AHrx3	Pure Sine Wave	Instant	95 mins	47 mins	32 mins

Line Interactive UPS - 600VA

This self contained UPS is ideal for the home PC, point of sale machines, or workstations and peripherals. Features include intelligent CPU control, highly synchronous transfer (less than 10ms), automatic battery charging in UPS off mode, surge protection, voltage overload/low voltage protection and much more. There is a USB socket for connecting to your PC and software is provided to enable automated shut down, as well as RJ12 sockets for telephone protection.

Specifications	
Rating	300W, 600VA
Supply voltage	100-230VAC
Output voltage	100-230VAC
Backup time	See table above
Switch over time	<10ms
Noise	<45db (at 1 metre)
Recharge time	90% capacity after 8 hours
Output waveform	Sine Wave (Mains), Modified Sine Wave (Battery)
Power outlets	3 UPS, 3 Mains (all surge protected)
USB Output	1
RJ12 input & output	1
Dimensions	280(W) x 185(D) x 95(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
300W - 600VA	MP-5224	$99.00	$88.95	$78.95

Line Interactive UPS Systems - 650VA & 1500VA

Once the uninterruptible power supply (UPS) is installed, it will constantly monitor the mains supply and switch to battery power and enable the system to be shut down without data loss. The included software can even be set up to save your data and close down your computer automatically if the power fails while you are away from your desk. Each UPS is supplied with a USB interface cable and software.

Specifications	MP-5201	MP-5203
Rating	360W, 650VA	750W, 1500VA
Supply voltage	220 to 230VAC	220 to 230VAC
Output voltage	230VAC	230VAC
Backup time	See table above	See table above
Switch over time	<10ms	<10ms
Recharge time	8 hrs	8 hrs
Output waveform	Step sine wave	Step sine wave
Dimensions	325(L) x 100(W) x 160(H)mm	382(L) x 124(W) x 225(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
360W - 650VA	MP-5201	$99.00	$88.95	$78.95
750W - 1500VA	MP-5203	$269.00	$245.00	$219.00

Line Interactive UPS - 650VA & 1500VA - with LCD

These line interactive units give you a good balance between real time system protection and power redundancy when mains electricity is down or experiencing reliability issues. During mains voltage sags both units will deliver a steady voltage, keeping critical systems running properly. For a total power blackout the units can keep your systems running long enough to save important data or cleanly shutdown connected devices. Other important features include an auto shutdown when no load is detected, audible alarms for low battery, self diagnosis on boot, and intelligent battery management.

Both models feature an easy to read LCD which displays battery and load values as a percentage and input/output voltages. At the rear of the unit are 2 x RJ11 sockets for Telephone/Fax protection and a USB socket for connection to your PC for use with the power management software.

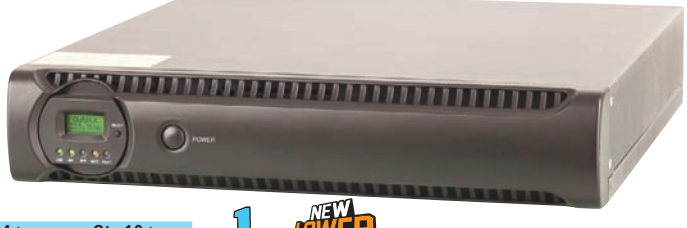
Specifications	MP-5205	MP-5207
Rating	650W, 390VA	1500W, 900VA
Status Display	LCD	LCD
Supply voltage	230VAC	230VAC
Backup time	See table above	See table above
Switch over time	<10ms	<10ms
Recharge time	90% Capacity after 8 Hours	90% Capacity after 8 Hrs
Short circuit protection	Yes	-
Mains connections	2 (input and output)	2 (input and output)
Communication	USB	USB
Frequency	50Hz	50Hz
Dimensions	340(L) x 95(W) x 165(H)mm	325(L) x 125(W) x 220(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
390W - 650VA	MP-5205	$129.00	$115.95	$102.95
900W- 1500VA	MP-5207	$299.00	$269.00	$239.00

On-Line Rack Mount UPS - 1000VA/700W

This is a true On-Line UPS. It has two power sources and a transfer switch that selects between them. The primary power source is the battery/inverter, and the mains or utility power is the secondary power source. Under normal operation the UPS is always running from the battery and the inverter, while the incoming mains supplies power to the battery charger. This design means that there is no transfer time in the event of a power failure - if the mains goes out, the inverter (and its load) keeps chugging along and only the power to the battery charger is interrupted. The UPS has a rack height of 2U and can be either incorporated into a standard 19" rack set up, or used in a tower configuration. The front panel LCD displays charging and system status information.

Specifications	
Rating	1000VA/700W
SLA battery	3 x 12V 7Ah
Input supply voltage range	160 - 290VAC (for full load operation)
Output voltage	230VAC
Backup time at full load	See table above
Switch-over time	Instantaneous (true On-line UPS)
Recharge time	18 hours
Output waveform	Pure Sine wave
Case Dimensions	440(W) x 475(D) x 86.5(H)mm



	Cat.	Qty 1+	Qty 4+	Qty 10+
1000VA - 700W	MP-5212	$549.00	$495.00	$439.00

Rack Mount Cabinets & Accessories

19" RACK MOUNT CABINETS & ACCESSORIES

19" Rack Mount Cabinets

Ideal for studios, PA, sound reinforcement, IT, or phone systems installations, with a size and configuration to suit any application. Coupled with our wide range of accessories and options, these 19" rack cabinets offer outstanding features. All come in 1.8mm solid steel powder coated cabinets with clear tempered glass doors. The sides can be removed for installation or maintenance access and all panels are key-lockable.

- High strength and rigidity under load
- Contemporary design
- Integrated power distribution
- Lift off side panels
- Top or bottom cable entry
- Cooling fan hole
- Camlock closures
- Front, sides and back lock separately
- Wall mounting without brackets
- Static loading capacity 60kg

6U
- Available flat packed or assembled
- Dimensions: 530(W) x 360(H) x 450(D)mm

Flat Packed: Cat HB-5170
Assembled: Cat HB-5171

9U
- Dimensions: 530(W) x 493(H) x 450(D)mm

Cat HB-5172

12U
- Dimensions: 530(W) x 626(H) x 450(D)mm

Cat HB-5174

	Cat.	Qty 1+	Qty 4+	Qty 10+
6U Rack Mount Flat Packed	HB-5170	$159.00	$142.95	$126.95
6U Rack Mount Assembled NEW	HB-5171	$189.00	$169.95	$150.95
9U Rack Mount Flat Packed	HB-5172	$199.00	$178.95	$158.95
12U Rack Mount Flat Packed	HB-5174	$229.00	$209.00	$182.95

RELATED PRODUCT...
See page 84 for Detailed Specs on Rack Cabinet Accessories

Swing Frame Rack Mount Enclosure

Swing frame enclosures allow you to access the rear of your rack system for maintenance or easier installation. Tempered glass doors and locking panels all round.

6U
- Dimensions: 600(W) x 380(H) x 610(D)mm

Cat HB-5180

12U
- Dimensions: 600(W) x 630(H) x 610(D)mm

Cat HB-5182

	Cat.	Qty 1+	Qty 4+	Qty 10+
6U Swing Frame Rack Mount	HB-5180	$219.00	$196.95	$174.95
12U Swing Frame Rack Mount	HB-5182	$299.00	$269.00	$239.00

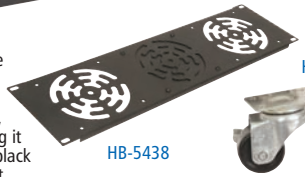
19" Rack Blank Panels

Blank panels for filling in unused space or configuring panels to your own requirements. Black powder coated steel, 1or 2 unit, vented or plain. The vented panels are also useful at the back of rack enclosures for attaching wiring looms to.

HB-5422

Rack Panel Accessories

A range of accessories to complete your rack system - blank panels for filling in space, vent panels and panels for fans or mic sockets, braked castors and feet for keeping it all where you want it. Panels are black powder coated steel, 1, 2 or 3 unit.



HB-5470

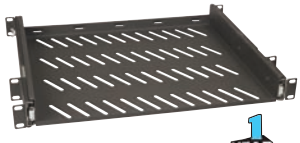
HB-5438

	Cat.	Qty 1+	Qty 4+	Qty 10+
1U XLR Socket Panel	HB-5436	$12.95	$11.35	$10.35
3U Fan Panel	HB-5438	$19.95	$17.70	$15.70
Braked Castors - Set of 4	HB-5470	$29.95	$26.90	$23.70
Adjustable Feet - Set of 4	HB-5472	$19.95	$17.70	$15.70
1U Blank Panel	HB-5420	$10.50	$9.25	$8.25
2U Blank Panel	HB-5422	$12.95	$11.35	$10.35
1U Vented Blank Panel	HB-5424	$18.95	$16.95	$14.95
2U Vented Blank Panel	HB-5426	$27.95	$24.95	$22.35

Ball Bearing Sliding Rack Shelf

Ideal for mounting computer keyboards or other equipment that needs to be accessed easily. The slides have ball bearing runners for smooth operation and will take a load of 20kg.

- Dimensions: 483(W) x 52(H) x 350(D)mm



Cat.	Qty 1+	Qty 4+	Qty 10+
HB-5450	$99.00	$88.95	$78.95

Fixed 19" Rack Shelves

Takes loads of up to 20kg. Solid steel construction, black powder coated finish.

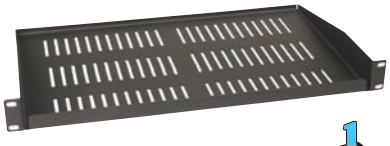
RELATED PRODUCT...
See page 84 for Rack Mount Enclosures

1U FIXED RACK SHELF
- Dimensions: 483(W) x 45(H) x 268(D)mm

Cat HB-5452

2U FIXED RACK SHELF
- Dimensions: 483(W) x 89(H) x 380(D)mm

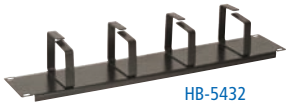
Cat HB-5454



	Cat.	Qty 1+	Qty 4+	Qty 10+
1U Fixed Rack Shelf	HB-5452	$49.00	$43.95	$38.95
2U Fixed Rack Shelf	HB-5454	$69.00	$61.95	$54.95

Rack Cable Supports

Takes the pain out of wiring and fault-finding rack cabinets. Your cables are kept organised and neat, with the support also providing strain relief.



HB-5432

	Cat.	Qty 1+	Qty 4+	Qty 10+
1U Rack Cable Support	HB-5430	$24.95	$22.35	$19.70
2U Rack Cable Support	HB-5432	$29.95	$26.90	$23.70

Patch Lead Management Panel

Keeps all your patch leads under control.

- 1U size.
- Removable cover plate

HB-5434

Dimensions	Cat.	Qty 1+	Qty 4+	Qty 10+
483(W) x 45(H) x 68(D)mm	HB-5434	$29.95	$26.90	$23.70

RACK MOUNT PDU & PATCH PANELS

6 Way PDU with Surge & Overload Protection

Power up to six components in your rack setup. The board has 6 conventional 240V outlets and fits any standard 19" rack. It actually takes a little more than one rack unit, but mounts on 1U centres.

- 1U rack space
- Overload protected
- Surge Protection
- 10A input
- Lead length: 1.6m
- Dimensions: 482(W) x 46(H) x 46(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	MS-4094	$69.95	$62.95	$55.95

Rack Mount Cat5e/6 Patch Panels

Sleek attractive looking rack mount 24 port patch panel with a hard metal exterior. Numbered ports and a labelling area for each port. Also comes with instruction stickers on the back for easier cabling. See our tool section for punch-down tools.

- Takes up 1 rack unit
- 24 port
- Numbered ports
- Labelling area
- Cat.5/6
- Dimensions: 485(W) x 44(H) x 34(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
24 Port Patch Panel Cat5e	YN-8046	$49.95	$44.90	$39.90
24 Port Patch Panel Cat6	YN-8048	$69.95	$62.95	$55.95

RACK MOUNT SWITCH

Rack Mount 16 Port 10/100Mbps Fast Ethernet Switch

NEW LOWER PRICE

10/100Mbps 16 Port rack mount switch with simple and easy-to-read interface. 16 LEDs for each port's status. Suitable for home LANs, multimedia classrooms, Internet cafes and enterprise networks.

- 16 Port
- 10/100Mbps
- IEC power connection
- Dimensions: 440(L) x 123(W) x 44(H)mm

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
16 Port	YN-8085	$59.95	$53.95	$47.90

24 Port 10/100 Ethernet Switch

Networking couldn't be any easier, with 24 x 10/100 Ethernet ports that support auto-negotiation and auto MDI/MDIX straight out of the box. Connect a device directly to the switch or add another switch to effortlessly expand your network. Offers simplicity for SOHOs and flexibility for small to medium enterprise networks. Includes mains adaptor.

Features:

- IEEE802.3 10Base-T Ethernet & IEEE802.3u 100Base-TX Fast Ethernet compliant
- 24 x 10/100Mbps auto-negotiation ports
- 8K MAC address table with self-learning and auto renewal
- Dynamic buffer limiting
- Broadcast storm control
- Data packet error detection
- Equips with internal switch power for the metal chassis rack switch
- Supports IEEE802.3x full duplex flow control and half duplex backpressure flow control
- Dimensions: 440(L) x 123(W) x 44(H)mm

NEW 2013

5 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
24 Port	YN-8083	$99.95	$89.95	$79.95

CAT5/6 CABLES

Cat5e Patch Leads

RJ45 to RJ45.

- 350MHz stranded cable.

ACMA Approved

RELATED PRODUCT...
For full range of Wallplates and Keystones see page 130

Colour	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
Blue	0.5m	YN-8200	$3.25	$2.90	$2.60
Blue	1.0m	YN-8201	$3.95	$3.45	$3.15
Red	1.0m	YN-8211	$3.95	$3.45	$3.15
Yellow	1.0m	YN-8221	$3.95	$3.45	$3.15
Green	1.0m	YN-8231	$3.95	$3.45	$3.15
Blue	2.0m	YN-8202	$5.25	$4.60	$4.15
Red	2.0m	YN-8212	$5.25	$4.60	$4.15
Yellow	2.0m	YN-8222	$5.25	$4.60	$4.15
Green	2.0m	YN-8232	$5.25	$4.60	$4.15
Blue	3.0m	YN-8203	$6.95	$6.25	$5.50
Blue	5.0m	YN-8204	$8.95	$7.95	$6.95
Blue	10.0m	YN-8205	$14.95	$13.35	$11.70
Blue	15.0m	YN-8206	$21.95	$19.70	$17.35
Blue	20.0m	YN-8207	$24.95	$22.35	$19.70
Blue	30.0m	YN-8208	$37.95	$33.95	$30.45

Crossover Cables

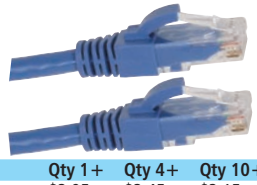
Crossover cable eliminates the need for a hub when connecting two computers.

Colour	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
Black	2.0m	YN-8272	$6.50	$5.75	$4.95
Black	5.0m	YN-8274	$10.50	$9.25	$8.25
Black	10.0m	YN-8275	$16.00	$14.35	$12.70

Cat6 Patch Cables

Range of Cat6 cables from 500mm to 10m.

- Patch leads meet TIA/EIA 568B2.1
- 50 microns of gold plating on each connector



1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	YN-8280	$3.95	$3.45	$3.15
1.0m	YN-8282	$4.95	$4.45	$3.90
2.0m	YN-8284	$6.95	$6.25	$5.50
3.0m	YN-8286	$8.95	$7.95	$6.95
5.0m	YN-8288	$12.95	$11.35	$10.35
10.0m	YN-8290	$21.95	$19.70	$17.35

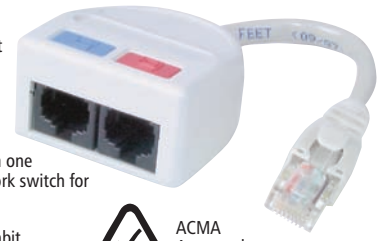
CAT5 SPLITTER

Cat5 UTP Splitter

Cat5 splitters enable two different devices to share the same Cat5 cable. They are usually used in pairs, one at each outlet.

Please note: you can't use this device to run two computers from one network port: you'll need a network switch for that.

This product is unsuitable for gigabit networks.



ACMA Approved

Cat.	Qty 1+	Qty 4+	Qty 10+
YT-6090	$16.95	$14.95	$13.35

CABLE TRAVEL KIT

Computer Cable Travel Kit

Over 900mm of pull to extend cable for RJ11 to RJ11, USB A/M to USB A/F, USB A/M to USB A/M, and FireWire 1394 6P/M to 6P/M. The kit also has an earphone and microphone with 3.5mm plugs, a mini USB optical mouse, and 4 way USB hub.

- USB A/M to A/M Connector
- USB A/M to B/M Connector
- USB A/M to Mini 5P/M Connector
- FireWire 1394 6P/F to 4P/M Connector
- USB A/M to Mini 4P/M Connector
- RJ11 to USB A/F Connector(*2PCS)
- RJ45 USB A/F Connector(*2PCS)
- RJ45 Crossover Connector
- USB A/M to USB A/M Cable
- USB A/M to USB A/F Cable
- FireWire 1394 6P/M to 6P/M Cable
- 3.5mm Earphone and Microphone
- RJ11 to RJ11 Cable
- 4 Port USB Mini Hub
- Mini USB optical Mouse

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
XM-5280	$19.95	$17.70	$15.70

USB 3.0 LEADS & ADAPTORS

High Quality USB 3.0 Male to Male Cable

CONCORD

Superior quality high speed USB 3.0 cables for your nextgen USB devices. Shielded for protection against EMI. Conforms to USB 3.0 standards - 4.8Gbps.

- 1.8m cable

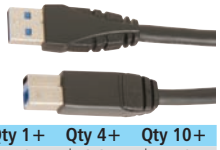
Male A to Male B Lead

Cat. WC-7782

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7782	$17.95	$15.95	$14.35

USB 3.0 Male A to Male B Lead

USB 3.0 offers data rates of up to 4.8Gbps - a quantum improvement over USB 2.0.



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7772	$14.95	$13.35	$11.70

USB 3.0 Male A to Male A Lead

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7770	$14.95	$13.35	$11.70

Powered USB 3.0 Extension Lead 5m

Suitable for high speed USB 3.0 applications. USB A plug to socket, 5m.

NEW LOWER PRICE

1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
5m	XC-4126	$34.95	$31.45	$27.90

USB Leads

USB 3.0 LEADS & ADAPTORS (CONT)

USB 3.0 Adaptors

PLUG B TO SOCKET A ADAPTOR
Cat PA-0930

MICRO B PLUG TO SOCKET A ADAPTOR
Cat PA-0931

SOCKET A TO A GENDER CHANGER
Cat PA-0932

PLUG MICRO B TO SOCKET B ADAPTOR
Cat PA-0933

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PA-0930	$7.95	$6.95	$6.25
	PA-0931	$7.95	$6.95	$6.25
	PA-0932	$7.95	$6.95	$6.25
	PA-0933	$7.95	$6.95	$6.25

USB 2.0 LEADS & ADAPTORS

High Quality USB 2.0 Leads

High quality USB 2.0 leads for your PC peripherals, professional audio or camera equipment. Superior shielding protects against potential electromagnetic interferences and ensures data continuity. 24K Gold plated connectors.

CONCORD

- 1.8 metres

USB A TO USB-MINI B MALE
Cat WC-7792

USB A TO USB MICRO B MALE
Cat WC-7796

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	1.8m	WC-7792	$14.95	$13.35	$11.70
	1.8m	WC-7796	$14.95	$13.35	$11.70

Retractable USB Leads

Full length cables become easily tangled and damaged inside bags as we carry them with us. Our range of high quality and durable retractable leads extends to your desired length as required and retracts easily after you're done. Convenient for travel, it's easy to pack up and stores neatly.

USB A PLUG TO USB A SOCKET WHITE
WC-7734

USB A PLUG TO USB A PLUG
WC-7735

USB A PLUG TO USB MICRO B SOCKET WHITE
WC-7736

USB A PLUG TO USB MINI B SOCKET WHITE
WC-7737

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	1.0m	WC-7734	$14.95	$13.35	$11.70
	1.0m	WC-7735	$14.95	$13.35	$11.70
	1.0m	WC-7736	$14.95	$13.35	$11.70
	1.0m	WC-7737	$14.95	$13.35	$11.70

Active USB 2.0 Extension Leads

Extend your USB devices. A built-in extender allows you to put data over longer distances. All use USB timing and electrical specifications that eliminate signal errors you may get in passive cables. USB 2.0 or 3.0, male to female and cables can be joined up to 25 metres.

Length	Cat	Qty 1+	Qty 4+	Qty 10+
5m	XC-4839	$24.95	$22.35	$19.70
10m	XC-4120	$39.95	$35.90	$31.90
20m	XC-4124	$49.95	$44.90	$39.90

USB RJ45 Extension Adaptor

Connect any USB device to your computer from up to 50 metres away via a standard Cat 5 network cable. Now you can have your printer, webcam, keyboard, mouse or any other USB device exactly where you want it without having to move your computer around.

- PC and Mac® compatible
- Requires standard Cat5e cables
- Supports USB 1.1
- Transmitter & Receiver included

	Cat	Qty 1+	Qty 4+	Qty 10+
	XC-4884	$29.95	$26.90	$23.70

USB 2.0 Extension Adaptor

Overcome the 5m length limitation of USB cables with this robust solution. It's comprised of two units, a sender which connects to your PC and a receiver for connection to the USB devices.

The sender and receiver are connected with a common Cat5e cable which allows extension of up to 90m giving you greater choice in deciding where to place your USB webcam, printer, scanner etc.

- Includes 5V power supply
- Receiver unit can be connected to a 4-port USB 2.0 hub for supporting up to 4 connected USB devices
- Sender connectors: USB Type A Male, RJ45 Female
- Receiver connectors: USB Type A Female, RJ45 Female, DC Port
- Supports Windows XP, Vista, 7
- Dimensions: 60 x 20 x 30mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4923	$69.95	$62.95	$55.95

USB2.0 OTG Female A Plug to Right-Angle Micro Male B Plug

Connect a USB peripheral to a USB OTG compliant mobile/portable electronic device, such as your Smartphone.

- Length: 150mm

TECH TIP!
USB OTG (On-The-Go) is a specification which enables users to connect a standard USB input device, such as a computer mouse, keyboard, and sometimes a USB thumb drive to USB devices such as Smartphones.

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	150mm	WC-7725	$4.95	$4.45	$3.90

Smartphone and Digital Camera Leads

USB A MALE TO B MINI CAMERA MALE
Suits many digital cameras such as Kodak.

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	1.8m	WC-7722	$9.95	$8.75	$7.75

USB A TO USB MICRO B LEAD

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW	0.5m	WC-7723	$5.95	$5.25	$4.75
	1.8m	WC-7724	$9.95	$8.75	$7.75

USB 2.0/480 PLUG A TO 5 PIN MINI-B

Use this to connect your PC to a digital camera or cam-corder. USB 2.0 compliant. A size male to B size mini male

TECH TIP!
Suits Sony PSP®

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW	0.5m	WC-7709	$5.95	$5.25	$4.75
	1.8m	WC-7710	$9.95	$8.75	$7.75

USB 2.0 A TO B

- USB 4 Pin (A) Male to USB 4 Pin (B) Male
- Conforms to USB 2.0 standard - 480Mbps

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW	0.5m	WC-7705	$5.95	$5.25	$4.75
	1.8m	WC-7700	$9.95	$8.75	$7.75
	3.0m	WC-7701	$11.95	$10.70	$9.50
	5.0m	WC-7706	$14.95	$13.35	$11.70

USB 2.0 A TO A EXTENSION LEAD

- USB 4 Pin (A) Male to USB 4 Pin (A) Female
- Conforms to USB 2.0 standard - 480Mbps

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW	0.5m	WC-7707	$5.95	$5.25	$4.75
	1.8m	WC-7702	$9.95	$8.75	$7.75
	3.0m	WC-7703	$11.95	$10.70	$9.50

USB 2.0 A TO A

- USB 4 Pin (A) Male to USB 4 Pin (A) Male
- Conforms to USB 2.0 standard - 480Mbps

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW	0.5m	WC-7708	$5.95	$5.25	$4.75
	1.8m	WC-7704	$9.95	$8.75	$7.75

IP67 Rated Type B USB Cable

Popular USB Type B connector. IP67 rated for harsh environments, with 1 metre cable extension. Plug or socket available:

- PP-0785: Type B USB Plug Cable - 1 metre
- PS-0781: Type B USB Socket Cable - 1 metre

	Length	Cat.	Qty 1+	Qty 10+	Qty 50+
	1m	PP-0785	$16.95	$14.95	$13.35
	1m	PS-0781	$18.95	$16.95	$14.95

Panel Mount Type B USB Socket

- Suits panels up to 10mm thick.
- Mounting hole 20mm

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PS-0783	$19.95	$17.70	$15.70

BNC TERMINATOR

BNC Terminator Plug

To terminate BNC sockets.
- Built-in 50Ω resistor.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PP-0655	$4.95	$4.45	$3.90

DISPLAY CONVERTERS & ADAPTORS

Mini DisplayPort to VGA Converter

Connect modern computers with a Mini DisplayPort to a conventional VGA display, such as CRT, LCD monitor or projector. Mini DisplayPort offers a unified, scalable, and cost effective interface for embedded and external display applications.

- Mini DisplayPort 1.1a compliant
- Supports up to 1080p, 1920 x 1200 video resolution

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WQ-7440	$29.95	$26.90	$23.70

Mini DisplayPort to HDMI Lead for Mac®

Connect your Mac® to a high definition display with this mini display HDMI lead.

- Designed for Mac® computers
- Plug and play

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WQ-7442	$29.95	$26.90	$23.70

Mini DisplayPort to DVI Video Cable

Converts the Mini DisplayPort on a Mac® or other Apple® product to a standard DVI connector, which can connect to a standard monitor.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WQ-7444	$29.95	$26.90	$23.70

Converter Lead Mini DVI Plug to HDMI Socket

Converter Lead Mini DVI Plug to HDMI Socket.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WQ-7423	$24.95	$22.35	$19.70

Mini DisplayPort and USB Audio to HDMI Converter

Seamlessly connect video and audio up to a large flat screen TV from a DisplayPort equipped device. Many Apple® products in the market today use mini DisplayPort for connecting to external displays, but many displays will only accept HDMI input.

- Converts video and audio to HDMI
- Mini DisplayPort 1.1a and USB 2.0
- HDMI 1.2a output
- Powered from mini DisplayPort and USB port
- Resolutions: 480p, 720p, 1080i, 1080p

1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
575mm	WQ-7426	$79.95	$71.95	$63.95

Mini DisplayPort to DisplayPort/HDMI/DVI Converter

Combine several mini DisplayPort converters into one with this useful unit. Easily converts to high definition displays that take HDMI, DVI or Display Port. Fully powered from the mini Display Port of your input device. A useful tool to use with your Macbook Air® or other Apple® device when wanting to output to a large screen TV.

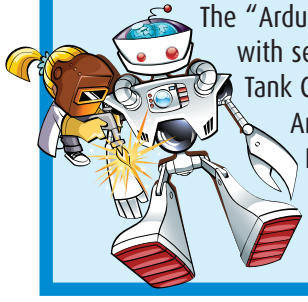
- Output types: DisplayPort Female Type A 20pin, HDMI Female Type A, DVI Female (24+1)
- Supports DisplayPort 1.1a
- HDMI can support audio output for iMac® and MacBook Pro®
- HDMI/DVI output up to 1920 x 1080p @ 60Hz
- Display it auto detected
- DisplayPort 1.1a Dual-mode output with max resolution of 2560 x 1600
- Lead length: 180mm
- Unit Dimensions: 78(L) x 44(W) x 15(H)mm

1 YEAR WARRANTY

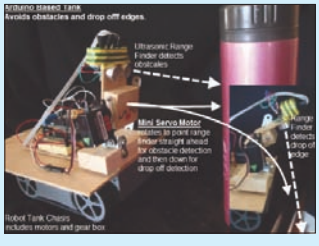
Cat.	Qty 1+	Qty 4+	Qty 10+
WQ-7427	$39.95	$35.90	$31.90

Arduino Based Tank

Makers Name: Jim Clark **Location: Victoria**



The "Arduino Starter Kit" got me started working with servos and a range of sensors. The Robot Tank Chassis is a perfect match with the Arduino Motor Shield to create a basic Rover type device. Then I wanted to build in some intelligence to avoid obstacles.



For more details scan the QR code or go to www.jaycar.com.au/makers

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

***ABN will be required - see our website or Store Manager for further details.**

Video & Data Cables

IEEE1394B FIREWIRE® LEADS

High Quality IEEE1394 Cables

Also known as FireWire, i.Link or Lynx cables, IEEE1394 is commonly used in digital audio/video and automotive applications. This range of high quality IEEE1394 cables boast 24K gold plated connectors, 99.9% oxygen free copper conductors and are shielded against EMI. If you require near faultless data streams these cables are hard to pass up.

CONCORD

IEEE1394 B 9-PIN TO IEEE1394 B 9-PIN CABLE
- 1.8m

Cat WC-7630

IEEE1394 B 9-PIN TO IEEE1394 A 4-PIN CABLE
- 1.8m

Cat WC-7632

IEEE1394 B 9-PIN TO IEEE1394 A 6-PIN CABLE
- 1.8m

Cat WC-7634

	Cat	Qty 1+	Qty 4+	Qty 10+
9 to 9 pin	WC-7630	$19.95	$17.70	$15.70
9 to 4 Pin	WC-7632	$19.95	$17.70	$15.70
9 to 6 Pin	WC-7634	$19.95	$17.70	$15.70

IEEE1394 FIREWIRE® LEADS

Firewire® is a high-speed serial bus standard which bridges the world of consumer electronics and computers. Allows users to attach camcorders, VCRs, DVD and other audio / video components to their computers and printers.

FIREWIRE® 4 PIN TO 4 PIN

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7640	$12.95	$11.35	$10.35
5.0m	WC-7641	$19.95	$17.70	$15.70

FIREWIRE® 6 PIN TO 6 PIN

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7644	$12.95	$11.35	$10.35
5.0m	WC-7645	$19.95	$17.70	$15.70

FIREWIRE® 4 PIN TO 6 PIN

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7647	$12.95	$11.35	$10.35
5.0m	WC-7648	$19.95	$17.70	$15.70

DVI VIDEO CABLES

DVI TO DVI VIDEO CABLE
- Can be used for DVI-A or DVI-D
- Male to Male
- 24 pin
- 2m

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7590	$29.95	$26.90	$23.70

DVI-A TO VGA VIDEO CABLE
- DVI to 15pin HD VGA
- 2m

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7594	$24.95	$22.35	$19.70

LAPLINK CABLES

RS-232 SERIAL LAPLINK CABLE

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7514	$19.95	$17.70	$15.70

FILE TRANSFER

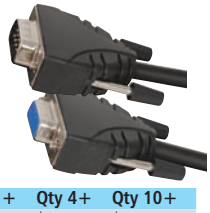
High Speed USB File Transfer Cable

Sharing files between computers can be tedious unless they're networked together. Not any more - simply plug into a USB port on both PCs, a file-sharing window opens automatically on both machines showing the host and the remote computer. Drag and drop between them as easily as from one folder to another. No drivers, software or plug-ins to install.
- No file size limitations
- Transfer rate of 16MB/second
- Windows 2000, XP, Vista
- 1.8m long

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4942	$24.95	$22.35	$19.70

SERIAL CABLES

DB9 MALE TO DB9 FEMALE EXTENSION CABLE
All pins wired straight through.



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7534	$9.95	$8.75	$7.75

DB9 FEMALE TO DB9 FEMALE NULL MODEM

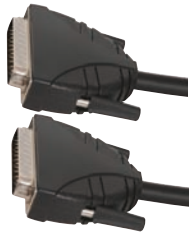
NEW 2013

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW 0.5m	WC-7511	$6.95	$6.25	$5.50
1.8m	WC-7513	$11.95	$10.70	$9.50

DB9 MALE TO DB9 MALE

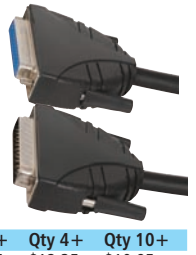
Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7535	$9.95	$8.75	$7.75

RS-232 CONNECTING CABLE
DB25 Male to DB25 Male



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7502	$13.95	$12.35	$10.95
	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WC-7504	$19.95	$17.70	$15.70

RS-232 EXTENSION CABLE
DB25 Male to DB25 Female



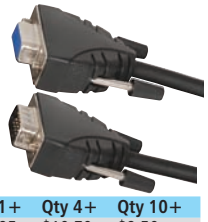
Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7508	$13.95	$12.35	$10.95
3.0m	WC-7510	$19.95	$17.70	$15.70

SERIAL MODEM CABLE
DB25 Male to DB9 Female

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7516	$11.95	$10.70	$9.50
3.0m	WC-7518	$13.95	$12.35	$10.95

MONITOR CABLES

VGA MONITOR EXTENSION
DB15HD male to DB15HD female



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7500	$11.95	$10.70	$9.50

VGA MONITOR CONNECTING CABLE
DB15HD Male to DB15HD Male

NEW 2013

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW 0.5m	WC-7583	$6.95	$6.25	$5.50
1.8m	WC-7582	$11.95	$10.70	$9.50

MONITOR CABLES (CONTINUED)

XVGA MONITOR CONNECTING CABLES

- DB15HD male to DB15HD male
- Ferrite supression on both ends
- Superior electrical screening

NEW 2013

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
NEW 0.5m	WC-7585	$8.95	$7.95	$6.95
2.0m	WC-7586	$18.95	$16.95	$14.95
5.0m	WC-7588	$39.95	$35.90	$31.90
10.0m	WQ-7258	$49.95	$44.90	$39.90
15.0m	WQ-7257	$69.95	$62.95	$55.95

DB15HD MALE TO 5 BNC PLUGS

- BNC plugs with red, green, blue, black & grey coloured cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7626	$38.50	$34.45	$30.90

PRINTER CABLE

D25 TO CENTRONICS CONNECTOR - 1.8M

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7522	$14.95	$13.35	$11.70

KEYBOARD & MOUSE LEADS

PS/2 KEYBOARD/MOUSE EXTENSION

6 Pin Mini DIN
Male to Female

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7532	$8.95	$7.95	$6.95

PS/2 6 PIN MINI DIN

Male to Male

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.8m	WC-7533	$9.95	$8.75	$7.75

GAMES LEADS

USB TO 2 X PS/2 LEAD ADAPTORS

Plug your PS/2 compatible mouse and keyboard into one USB port of your PC or notebook.

- Approx. 320mm
- USB 1.1 compatible

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.3m	WC-7571	$24.95	$22.35	$19.70

GENDER CHANGERS

DVI-A PLUG TO VGA SOCKET

For connecting DVI-A or DVI-I video cards with VGA monitors.

- Note: Will not display the digital video signal from a DVI-D output, even though the plug physically fits.

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-0897	$12.95	$11.35	$10.35

DB9

All pins wired straight through.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Male/Male	PA-0900	$5.95	$5.25	$4.75
Female/Female	PA-0901	$5.95	$5.25	$4.75

Right Angle Male to Female Adaptor

DB9 Male to DB9 Female
Cat PA-0908

	Cat.	Qty 1+	Qty 4+	Qty 10+
DB9	PA-0908	$5.95	$5.25	$4.75

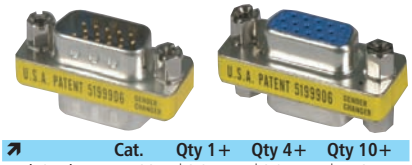
DB15

All pins wired straight through.

	Cat.	Qty 1+	Qty 4+	Qty 10+
Male/Male	PA-0870	$5.95	$5.25	$4.75
Female/Female	PA-0871	$5.95	$5.25	$4.75

DB15 HIGH DENSITY

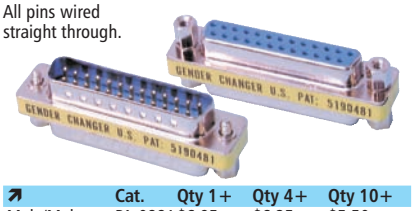
All pins wired straight through.



	Cat.	Qty 1+	Qty 4+	Qty 10+
Male/Male	PA-0875	$6.95	$6.25	$5.50
Female/Female	PA-0876	$6.95	$6.25	$5.50

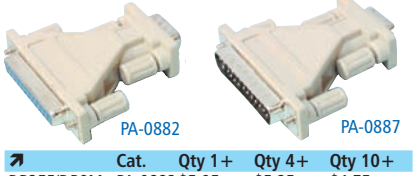
DB25

All pins wired straight through.



	Cat.	Qty 1+	Qty 4+	Qty 10+
Male/Male	PA-0881	$6.95	$6.25	$5.50
Female/Female	PA-0884	$6.95	$6.25	$5.50

DB25/DB9



PA-0882 PA-0887

	Cat.	Qty 1+	Qty 4+	Qty 10+
DB25F/DB9M	PA-0882	$5.95	$5.25	$4.75
DB25M/DB9F	PA-0887	$5.95	$5.25	$4.75

KEYBOARD/MOUSE ADAPTORS

5 PIN DIN MALE TO 6 PIN MINI DIN FEMALE

5 PIN DIN SOCKET TO 6 PIN MINI DIN PLUG

PL-0940 PL-0941

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PL-0940	$7.95	$6.95	$6.25
	PL-0941	$7.95	$6.95	$6.25

USB ADAPTORS

"A" FEMALE TO "A" FEMALE

RIGHT ANGLE "A" MALE TO "A" FEMALE

PA-0921 PA-0926 PA-0927

	Cat.	Qty 1+	Qty 4+	Qty 10+
Skt to skt	PA-0921	$7.95	$6.95	$6.25

	Cat.	Qty 1+	Qty 4+	Qty 10+
Angle Up	PA-0926	$7.95	$6.95	$6.25
Angle Down	PA-0927	$7.95	$6.95	$6.25

"A" MALE TO PS/2 FEMALE

"A" FEMALE TO PS/2 MALE

Colour may vary.

PA-0915 PA-0917

	Cat.	Qty 1+	Qty 4+	Qty 10+
USB Male	PA-0915	$7.95	$6.95	$6.25
USB Female	PA-0917	$7.95	$6.95	$6.25

CONFIGURABLE RJ45 ADAPTORS

DB25 MALE TO RJ45 8 X 8 SOCKET

- Unwired

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
DB25 Male	PA-0904	$7.95	$6.95	$6.25

DB25 FEMALE TO RJ45 8 X 8 SOCKET

- Unwired

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
DB25 Female	PA-0905	$7.95	$6.95	$6.25

DB9 SOCKET TO RJ45

Socket Adaptor.

- Unwired

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PA-0906	$5.95	$5.25	$4.75

VIDEO ADAPTOR

DIGITAL VIDEO INTERFACE

Female to female

- Compatible with DVI-I single dual link, DVI-D single/dual link & DVI-A male
- All pins wired straight through

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PA-0896	$23.95	$21.35	$18.95

Converters & Adaptors

CONVERTERS & ADAPTORS

RS-232 DB9 to USB Converter

NEW 2013

Connect a variety of legacy RS-232 devices to your modern computer with this simple adaptor.

- USB 1.1 compliant
- Speed: Over 250kbps
- Remote wake-up and power management
- Supports Windows XP, Vista 7 (32/64 bit) and Mac® OS9x or later.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4927	$27.95	$24.95	$22.35

DB9M RS-232 to USB Converter

This USB to 9 pin Serial (RS-232) converter allows a computer with a USB port to use any RS-232C serial device via the USB port. Suitable for digital cameras, modems, POS systems, ISDN terminal adaptors etc. The converter is powered by the USB port. Transmit, receive and link indicators are provided.

- Full compliance with USB specification 1.1(0)
- Over 1Mbps data transfer rate
- Support remote wake-up and power management
- Supports Windows 2000, XP, Vista & MAC OS 8.6 or greater. CD included.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	XC-4834	$29.95	$26.90	$23.70

RS-485/422 to USB Converter

Wire up an RS-485/422 device to the 4 socket terminal block to give your hardware USB connectivity. It features surge protection to guard against unpredictable voltage spikes. Suitable for industrial, military, marine, science and custom built applications. USB A male to male cable supplied.

- 610mm USB A Male to Male cable included
- Dimensions: 55(L) x 42(W) x 24(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4132	$99.00	$88.95	$78.95

Serial to Ethernet Converter

With this converter, computers can connect to serial devices over Ethernet. It's an ideal solution for people who need to monitor or access RS-232 based equipment remotely or to share them over a network. There is one 9-pin male RS-232 plug, an RJ-45 socket and a terminal block to wire up RS-485 or RS-422 connections. Can be accessed remotely through a simple web interface.

Specifications	
Supports	10/100M
Converts	RS-232, RS-485 and RS-422
Dimensions	88(L) x 68(W) x 27(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4134	$169.00	$151.95	$134.95

RS-232 to Bluetooth® Converter

Add shortrange bluetooth® wireless connectivity to RS-232 based devices. It features one 9-pin female RS-232 socket and an 11mm long SMA screw on antenna. A great way to reduce serial cable mess. Perfect for serial printers, scanners, custom built RS-232 products and a host of other devices.

- Class 1 (up to 100m range)

Specifications	
Antenna	11(L)mm - SMA plug
Led Indicator	SYS (Power), Pairing
Dimensions	72(L) x 30(W) x 14(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4130	$139.00	$124.95	$110.95

Parallel to USB Bi-Directional Cable

Parallel printer ports have disappeared from most modern desk top computers and virtually all new notebook computers. This is not a problem if you have a USB printer, but many people still want to use their parallel printer or other parallel port devices such as ZIP drives or external CD-ROMs etc. This handy device replicates the old 25 pin printer socket and lets you use your legacy devices just like you would with a normal printer port. The USB interface provides up to 12Mbps data throughput, so printing is significantly faster compared with a standard parallel port (150kbps) connection.

- USB Printer Class Specification 1.0 compliant
- IEEE-1284 1994 (Bi-directional parallel interface)
- Cable Length: 2 metres
- USB 1.1 Compliant A type male connector
- Compatible with Win 2000, XP and Vista
- Plug & Play support

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2m	XC-4847	$39.95	$35.90	$31.90

SWITCH BOXES

VGA/Audio Splitters

Takes a computer's VGA and audio signal and sends it to two (2) analogue monitors and headphones/speakers via Cat5 cable. The same image is displayed on both monitors and identical audio streams are piped to each 3.5mm audio jack. The splitter provides fast, flexible solutions for test bench facilities, data centres or video broadcasting such as remote monitoring, presentations, education and stock quotes etc. Supports VGA, SVGA, XVGA and Multi-Sync. Mains power adaptor included.

2 PORT VGA/AUDIO SPLITTER

- Bandwidth up to 500MHz
- Resolution up to 1920 x 1200 and 1080p
- Transmit video/audio up to 15m
- Dimensions: 125(W) x 25(H) x 72(D)mm

Cat YN-8075

4 PORT VGA/AUDIO SPLITTER

- Bandwidth up to 500MHz
- Resolution up to 1920 x 1200 and 1080p
- Transmit video/audio up to 15m
- Includes a 1.8m male to female VGA cable
- Dimensions: 165(W) x 46(H) x 98(D)mm

Cat YN-8076

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Port Splitter	YN-8075	$69.95	$62.95	$55.95
4 Port Splitter	YN-8076	$99.95	$89.95	$79.95

KVM SWITCH

Keyboard Video Monitor (KVM) Switch - 2 Port USB

KVM switches allow you use one keyboard, mouse and monitor to control several computers. These switches are designed to allow IT administrators to control servers which don't require their own monitor or keyboard etc but are just as suited to the power user who has more than one computer on their desk.

PC Port Connections:
- Keyboard / Mouse (or other): USB 2.0
- Monitor: D15HD

Console Port Connections:
- Keyboard / Mouse (or other):
- 2 Port: USB 2.0 x 2
- Monitor: D15HD

Specifications	
Max Resolution	1920 x 1440 pixels
Video Bandwidth	250MHz

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8093	$59.95	$53.95	$47.90

KVM Switch with HDMI/Mic/ Audio Support - 2 Port

NEW 2013

Share a stereo speaker, mic, keyboard and mouse across two computers. Connect to a HDMI or DVI input screen. Easily switch between the two at the press of a button.

- Mains adaptor included
- 2 x USB ports
- 1 x 3.5mm stereo jack
- 1 x 3.5mm mic jack
- 1 x input cable with 2 x HDMI, 2 x USB and 2 x 3.5mm plugs
- Can support up to 2 x USB2.0 hubs
- Max. resolution: 1920 x 1440 @ 60Hz
- Transmission distance: PC up to 5m, console up to 3m
- Dimensions: 100(L) x 75(W) x 23(D)mm

PC not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Port KVM Switch	YN-8094	$119.00	$106.95	$94.95

VIDEO CONVERTERS

USB to DVI Adaptor

Enabling the addition of up to six extra displays, this adaptor allows you to add high-resolution graphics without having to add a graphics card - just connect it to any USB 2.0 port. Ideal for gamers, conference or AV rooms, POS systems or industrial applications.

- Video output with HDMI connecter
- Supports DVI video output via HDMI-DVI adapter
- Easily connects additional monitors using a USB 2.0 cable
- Mirror or extend computer display workspace
- Resolution: up to 1,920 x 1,080 pixels at 32-bit colours
- No external power supply needed

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4879	$69.95	$62.95	$55.95

DVI to VGA, Digital to Analogue Signal Converter

NEW 2013

Still in use today are many older computer displays and projectors which accept analogue VGA inputs only. You've probably kept yours because it is in good working order, but if you have upgraded to the latest computer, chances are the video card inside only supports a digital DVI output, rendering the two incompatible. Not so with this converter. It converts the digital signal from your video card to an analogue signal suitable for use with your existing VGA display or projector.

- Converts digital DVI signal to analogue VGA signal
- Supports HDCP 1.2
- 165MHz/1.65Gbps per channel (6.75Gbps all channels) bandwidth for DVI input
- Supports analogue video output up to UXGA and 1080p with 10-bit DAC

Signal inputs/outputs	
Input video signal	0.5-1.0V p-p
Input DDC signal	5V p-p (TTL)
Input connection	DVI female (24+1)
Output connection	VGA
DVI video input format	480i/576i/480p/576p/720p/1080i/1080p
VGA video output format	480i/576i/480p/576p/720p/1080i/1080p
Vertical frequency range	50/60Hz
Input video amplifier bandwidth	1.65Gbps/165MHz
Weight	0.68kgs
Dimensions	88(L) x 68(W) x 25.5(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WQ-7445	$59.95	$53.95	$47.90

VGA to DVI, Analogue to Digital Signal Converter

NEW 2013

Current computer LED displays support digital DVI inputs only, however many small form factor PCs and older computers use video cards with analogue VGA output only. Use this converter to convert the analogue signal from your video card to a digital signal suitable for use with the latest LCD or LED display.

- Converts analogue VGA signal to digital DVI signal
- Supports a maximum display resolution of 1280 x 1024
- 165MHz/1.65Gbps per channel (6.75Gbps all channel) bandwidth
- 8-bit per channel (24-bit all channels) deep colour

Specifications		
Input video signal	0.5-1.0V p-p	
Input video	VGA (female)	
Output video	DVI (female 24+1)	
VGA resolution	640x480 at 60/75Hz 1024x768 at 60/75Hz 1280x768 at 60/75Hz 1280x1024 at 60/75Hz	800x600 at 60/75Hz 1280x720 at 60/75Hz 1280x960 at 60/75Hz
Vertical frequency range	50/60Hz	
Video amplifier bandwidth	1.65Gbps/165MHz	
Dimensions	88(L) x 68(W) x 25.5(H)mm	

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WQ-7446	$59.95	$53.95	$47.90

USB to 1080p HDMI

Add a HDMI port to your computer with this convenient adaptor. Has numerous possibilities for home theatre, conferences, finance industry, point of sale marketing in shopping centres etc. You can mirror your current display or extend your desktop display for more screen real estate and multitasking. Install the driver, connect the device to your USB 2.0 port then connect to your extra display and away you go. Please note that this product is not suitable for graphically intense games.

NEW LOWER PRICE

- Add up to 6 extra displays to a PC (requires 6 adaptors)
- Video resolution: 1,600 x 1,200 and 1,920 x 1,080 pixels (maximum)
- Output: HDMI with audio and DVI with supplied HDMI-DVI adpator
- Compatible with Windows XP, Vista, Windows 7
- Dimensions: 86(L) x 48(W) x 18(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4972	$79.95	$71.95	$63.95

HDMI to VGA Converter

NEW 2013

Converts digital high definition video from a HDMI source to analogue signal for displaying on older screens/projectors which only have a VGA input. Power is drawn from the HDMI port so no external power is required.

Specifications	
HDMI input formats	480p, 576p, 720p,1080p
VGA video output format	480p (720x480), 576p (720 x 576), 720p (1280×720), 1080p (1920x1080)
Frequency	50/60Hz
Dimensions	250(L) x 37(W) x 13(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1638	$69.95	$62.95	$55.95

VGA and USB Audio to HDMI Audio/Video Converter

NEW 2013

Connect older PCs up to more modern displays such as LCD's and plasma screens. Just plug the VGA and USB cable into your PC and it will output a HDMI signal with audio/video. Doesn't get much simpler than that as the converter requires no external power. Fantastic for turning that old laptop or PC into a media centre for use on your big new flat screen.

Specifications	
VGA cable	300mm long
USB cable	1200mm
Supports	165MHz/1.65Gbps per channel
Powered	from USB port
Converter unit	80(L) x 55(W) x 11(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1639	$79.95	$71.95	$63.95

VGA to Composite and S-Video Converter

A compact and versatile device that lets you use your wide screen plasma or LCD screen as a computer monitor for gaming or presentation use. The unit accepts a standard VGA input and generates both composite video and S-Video signal simultaneously, so you can watch and record the video signal at the same time or even send it over a video distribution system. Great for watching DVDs, gaming, presentations, or just having a big screen on your computer. The unit powered from the computer's USB port and has an on-screen setup menu to adjust the video output signal and picture size. No software is required.

Back view

- Supports composite video and S-video output.
- Up to 1024 x 768 resolution
- Display on both PC and TV simultaneously
- Input and output leads included
- Powered from USB Port
- Size: 90(L) x 70(W) x 25(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4871	$69.95	$62.95	$55.95

Component/Composite Video to VGA Converter

This compact converter box accepts a range of video input signals and converts them to VGA specification for use on CRT, LCD and video projection systems. The converter also has YPbPr (component video) input for connecting DVD players Xbox®, Wii®, or other hi-resolution video sources up to 1080i. Advanced scanning technology increases the refresh rate of the output signal to eliminate flicker and improve image stability, which also allows it to work with many LCD monitors that require a high refresh rate. The on-screen set up menu is simple to use and no software installation is required. A slim line remote control is included.

Specifications	
Supports	NTSC/PAL
Input	Composite video, S-video, and Component Video (YPbPr), Stereo audio
Output	VGA and Stereo audio
Resolution	Up to 1440 x 900
Aspect ratio	4:3 or 16:9
Refresh rate	Up to 75Hz
Power supply	5V 800mA
Dimensions	90(D) x 145(W) x 24(H)mm

NEW LOWER PRICE

Stand provided for vertical mounting

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4873	$69.95	$62.95	$55.95

Video Presentation Aids

VIDEO CONVERTERS (CONTINUED)

VGA & R/L Audio to HDMI Scaler Converter

NEW 2013

Combines the audio and upscale the VGA output signal on a computer to 1280 x 720p for optimum viewing on a HDTV. Ideal for computers that only have a VGA output.

- HDMI resolution fixed to 1280x720p
- HDMI 165MHz/1.65Gbps per channel (6.75Gbps total)
- HDMI 8 bit per channel

Signal inputs/outputs		
Input signal	VGA, R/L audio	
Output video signal	HDMI 720p	
VGA resolutions	640 x 480 at 60/72/75/85Hz	800 x 600 at 60/72/75/85Hz
	1024 x 768 at 60/70/75/85Hz	1280 x 720 at 60Hz
	1280 x 768 at 60/70/75/85Hz	1280 x 800 at 60/70/75Hz
	1280 x 960 at 60Hz	1280 x 1024 at 60Hz
	1440 x 900 at 60/75/85Hz	1920 x 1080 at 60Hz
	1920 x 1200 at 60Hz	1920 x 1440 at 60Hz

Note: It is possible that several resolutions are limited on few displays

- Vertical frequency range: 50/60Hz
- Video amplifier bandwidth: 1.65Gbps/165MHz
- Dimensions: 88(L) x 68(W) x 25.5(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1617	$99.00	$88.95	$78.95

PRESENTATION AIDS

Keyring Laser Pointer

This laser keyring pointer is chrome plated, and has a keychain attached. Requires 3 x LR44 batteries, which are supplied.

- Very small, only 70mm long x 13mm dia
- Wavelength 670nm / Max output < 1mW
- Do not stare into beam

This laser pointer has passed Australian Standards for laser pointers. AS/NZS 2211.1:1997.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	ST-3102	$14.95	$13.35	$11.70

MORE INFORMATION...

Laser radiation
Do not stare into beam.
Class 2 laser products

RF Presenter with Laser Pointer

Combining a laser pointer and an RF remote control, this handy device gives you control over your PowerPoint presentations, training sessions or slide shows. The receiver connects to any USB port and gives you page up/down, play and blank screen functions. Ideal for corporate trainers, conferences or just for the family holiday slide show.

- Battery included
- Up to 10 metre range
- Dimensions: 88(L) x 34(W) x 9(H)mm

1 YEAR WARRANTY

This laser pointer has passed Australian Standards for laser pointers. AS/NZS 2211.1:1997.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	ST-3111	$29.95	$26.90	$23.70

Pen Style RF Presenter with Laser Pointer

NEW 2013

For professionals such as teachers and lecturers who frequently use PowerPoint presentations but don't want to be tied to their computer. You can cycle back and forward through slides, blank the screen (PowerPoint only), or use the units laser to highlight key points in presentations. Hassle free plug and play, no need for fiddling with installation. The USB receiver is integrated into the pen unit for easy transportation and usage. The receiver unit conveniently includes a MicroSD card slot you can use it as an MicroSD card reader.

- Compatible with Windows and Mac®
- Control distance: Up to 10m
- Laser distance: Up to 200m
- Laser wavelength: 650nm
- Battery: Requires 1 x AAA (included)
- Dimensions: 133(H) x 22(W) x 17(Dia)mm

This laser pointer has passed Australian Standards for laser pointers. AS/NZS 2211.1:2004.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5410	$34.95	$31.45	$27.90

eFlash Portable Presentation Console

eFlash allows you to present common Microsoft Office applications without the need for a computer. It connects easily and intuitively to a projector or TV with simple cable connections and is operated by the included remote control with integrated laser pointer. Store your presentations on a memory card and leave the computer at the office. An essential for corporate trainers and teachers.

- Thumbnail index page with file names
- Auto slide show with variable rate
- Accepts SD and MMC cards
- Displays at true colour VGA resolution (up to 640 x 480).
- Zoom and pan feature for clarity when viewing spreadsheets or fine print
- Supported formats: Microsoft Word, Excel, PowerPoint, PDF, Macromedia Flash, JPEG
- TV output PAL and NTSC compatible
- Dimensions: 103(L) x 115(W) x 53(H)mm.

1 YEAR WARRANTY

	Cat.	Qty 1+
	XC-5405	$54.95

DIGITAL VOICE RECORDERS

512MB Digital Voice Recorder

Record up to 270 hours of voice, notes or music. Three recording options are available - high quality, long play or short play with either manual or voice-activated recording.

You can either play back through headphones or use the included software to play, save or edit the audio files on your PC. An LCD screen keeps track of everything you record and it can also be used as an MP3 player.

- USB cable, software, earphone, external MIC and AV lead included
- External mic input
- Requires 1 x AA battery
- HQ, LP and SP recording modes
- Date and time-stamped recordings
- Dimensions: 111(L) x 28(W) x 14(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-0381	$49.95	$44.90	$39.90

4GB Digital Voice Recorder

With expanded capacity of 4GB and stereo capability, this recorder is ideal for the roving muso to quickly record musical ideas in either HQ, LP and SP and to play back MP3 tracks. Play back through headphones or the built-in speaker. Also great for students and business meetings.

- Up to 1080 hours recording
- Supports MP3/WMA/ACT formats
- Built in lithium ion battery
- USB cable, CD driver, user manual, earphone, external MIC
- Dimensions: 85(L) x 34(W) x 11(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-0383	$99.00	$88.95	$78.95

Sensor Room Activity Switch

Makers Name: Peter Bennett
Location: New South Wales

As a volunteer for TAD Disability Services I get involved with interesting projects to help people with disabilities. One such project is a Sensory Room, an area where profoundly intellectually disabled people can experience calming, stimulating or interactive activities. The challenge is to make the various activities interchangeable by non-technical, very busy staff, so that the activities are varied for the clients. The activities involve light, sound or movement, and are often adapted from battery powered toys and other devices. The Sensory Room Activity Switch (SRAS) forms a single universal power interface for any activity device regardless of its voltage requirement, ensuring simple interchangeability of activities.

For more details scan the QR code or go to www.jaycar.com.au/makers

MEDIA PLAYERS

Full High Definition 1080p Media Player

A sleek media player dripping with functionality and convenience. Plug in your storage device, be it a portable USB hard drive, a USB thumb drive or even an SD card and jump right in and start viewing media on the TV from the comfort of your sofa.

Connectivity does not end there: The UPnP (Universal Plug and Play) feature allows you to link the media player to your laptop, desktop PC or NAS device over your home network and play files directly from them. The graphical user interface is beautifully designed and augmented with a logical navigation structure that makes it a joy to use. The remote control gives you one press access to video modes suitable for your TV, display ratio adjustments, pause, fast forward/rewind and all the features you'd expect from a remote. Media format support is extensive (see below specs), VOB support is particularly useful for centralising your decrypted DVD collection for playback through the media player. The unit is finished in glossy black and is compact enough to sit comfortably in your entertainment centre.

- High Definition video up to 1080p
- AC3/DTS audio with HDMI 1.3 / Coaxial output
- HDMI, YPbPr (YUV component) & AV outputs
- Ethernet connectivity (UPnP)

Specifications	
Supported video formats	RM/RMVB/AVI/MPEG4/MKV/M2TS/DivX/XviD/ Dat/VOB/MP4/MOV/SWF
Supported audio formats	MP3/WMA/OGG/WAV/ACC/AC3/M4A/RA/RM
Picture	BMP/JPEG/PNG/GIF/TIFF
Subtitle	SRT, SUB, SMI, SSA, formats

NOTE!
HIGH DEFINITION

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4204	$119.00	$106.95	$94.95

1 YEAR WARRANTY

Android Smart TV Media Player HDMI Dongle with Wi-Fi

NEW 2013

A mini-TV entertainment system that opens up a huge range of possibilities. It's a small form factor Android 4.0 media player designed to plug straight into your HDMI equipped flat screen TV or PC monitor. You can surf the net via Wi-Fi, watch YouTube® videos, use your preferred social media service, play games, watch movies, install apps, and more. It features 1 x USB port to plug in a flash drive or USB HDD for playback of movies or music and the device is powered from a Micro-B USB port on the side. There's also a slot for a microSD card allowing to expand the memory of the unit. The unit includes a remote control, but for the full benefit of the Android OS we recommend you use it in conjunction with a wireless keyboard/mouse combo (use XC-4943).

- Includes HDMI & IR extension lead, remote control and mains adaptor

Specifications	
CPU:	ARM Cortex A9
Frequency	800MHz-1GHz
RAM	DDR3-1GB
Storage	NAND 2GB-32GB
OS	Android 4.0
Browser	Google Chrome®
Supports	1080p video playback
Media Player	Local video playback MPEG1/2/4, H.264, VC-1, WMV, AVI, MKV, MOV
Online Video	Access to internet, online video playing
Music: Local music player	MP3, WAV, WMA
Online music	Access to internet, online music playing
Picture viewer	Support multi formats: BMP, JPG, TIF, PNG, GIF
Software update	Support microSD card for software update
External storage	microSD card, USB storage support

Specifications	
HDMI	HDMI 1.4a
USB 1	Type A, USB 2.0 Host
USB 2	Micro USB, USB 2.0 OTG
IR	3.5mm, 38KHz
Wi-Fi	MCX 802.11 a/b/g/n
microSD	Supports up to 16GB microSD memory card
Resolution	1920 x 1080
Power	Micro USB Power Supply
Remote	Distance: 8m Visual
Wi-Fi	802.11 b/g/n
Weight	82g
Power	Via Micro USB, 5V 800mA
Dimensions	82(L) x 33(W) x 12(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4203	$89.95	$80.95	$71.95

1 YEAR WARRANTY

Digital TV Media Box with Android 4.0

NEW 2013

An Android 4.0 media player that conveniently includes a HDTV tuner so you can watch digital TV and minimise the number of devices hovering around your TV. It allows you to install apps and use them on the big screen so a simple display becomes an internet capable entertainment centre. You can plug in a USB flash drive or hard drive and watch movies, listen to music, or view pictures through the beautiful and functional Android 4 interface. You can surf the web via Wi-Fi, watch YouTube videos, catch up with friends on FaceBook® or Twitter®, annihalate pigs in angry birds, or feed omnom candy in cut the rope®. There is something for everyone. You can even record digital TV! For a more seamless experience we highly recommend using a wireless keyboard/mouse combo (XC-4943).

Pre-installed apps include:
Angry Birds®
App Back Up & Restore
AppInstaller
Brower
DVB Player
FaceBook®
Google Chrome®
MSN Messenger®
PlayStore®
Skype®
YouTube®

Connectivity:
3 x external USB sockets
SD card Slot
10/100Mbps Ethernet
Wi-Fi 802.11a/b/g/n
Line out via RCA
IR remote control receiver

Hardware	
CPU	ARM Cortex A9, 800MHz, 3D engine
RAM	1G DDR2
FLASH MEMORY	4GB (IN-BUILT)

Media support	
Video	MPEG-1,MPEG-2, MPEG-4, H.264, VC-1 1080p, WMV, MOV, AVI, MKV
Audio	MP3, WMA, OGG, WAV
Picture	BMP, JPG, TIF, PNG, GIF
Video output	HDMI, Composite video
Audio output	Left/Right RCA, Optical Toslink
Power	110-240VAC, 1A DC 5V 2A
Dimensions	193(L) x 145(W) x 27(H)mm

NOTE!
HIGH DEFINITION

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4209	$159.00	$142.95	$126.95

1 YEAR WARRANTY

HDD Accessories & Power Cables

HARD DRIVE POWER CABLES

SERIAL ATA / SATA / eSATA Power Cables

A range of SATA and eSATA data/power cables for use with personal computers and external serial ATA devices.

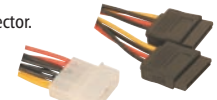
4 PIN POWER SPLITTER CABLE
Standard 4 pin power splitter for PC
• 1 x HDD plug to 2 x HDD sockets Cat. PL-0750

SERIAL ATA LEAD 7 PIN PLUG
Use this 7pin cable to transfer data between your Serial ATA hard drive and serial ATA interface, at rates up to 150Mbps. Thinner, smaller and more versatile than the Parallel ATA Standard. Cat. PL-0978

7 PIN TO 7 PIN SATA
Colour: Red
Length: 1 metre Cat. PL-0980

STRAIGHT TO RIGHT ANGLE SATA
Colour: Red
Length: 1 metre Cat. PL-0981

eSATA CABLE
Supports data transfer rates up to 3Gbps.
Colour: Maroon
Length: 2 metres Cat. PL-0982



HDD POWER TO 2 X SATA
Power two SATA devices from one 4-pin male Molex connector.
Length: 200mm Cat. PL-0759

HDD POWER TO 1 X SATA
Power a SATA devices from a 4-pin male Molex connector.
Length: 200mm Cat. PL-0758

	Cat.	Qty 1+	Qty 4+	Qty 10+
HDD power to 2 HDD Sockets	PL-0750	$4.95	$4.45	$3.90
SATA to SATA	PL-0978	$5.95	$5.25	$4.75
SATA to SATA	PL-0980	$7.95	$6.95	$6.25
SATA RA to SATA	PL-0981	$7.95	$6.95	$6.25
eSATA to eSATA	PL-0982	$6.95	$6.25	$5.50
HDD power to 2 x SATA power	PL-0759	$7.95	$6.95	$6.25
HDD Power to SATA	PL-0758	$5.95	$5.25	$4.75

HDD POWER ACCESSORIES

12V/5VDC 2A IDE/SATA HDD Power Supply

For most people, hard drive rack arrays in the house aren't a feasible option so old hard drives tend to go unused. If your computer is equipped with an e-SATA port you can power up and connect those hard drives with ease and start transferring, formatting or cloning drives without opening up the PC. This product is ideally suited for use with an e-SATA front panel and our SATA to e-SATA cable (PL-0757. It features a SATA power connector in addition to a 12VDC male Molex plug for use with IDE drives. An IDE drive can also be used externally if you have a IDE to SATA upgrade panel (XC-4970).

NEW LOWER PRICE

1 YEAR WARRANTY

• Also features power switch.

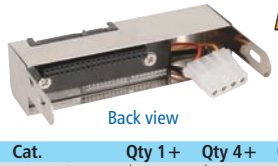
	Cat.	Qty 1+	Qty 5+	Qty 10+
	MP-3239	$19.95	$17.70	$15.70

IDE to SATA HDD Upgrade Panel

Clip this onto the end of an old 3.5" IDE hard drive and the drive can then be used in our SATA HDD docks or inside personal computers that lack IDE data and power connectors. A simple method for upgrading IDE drives.

• Dimensions: 105(W) x 25(H) x 62(D)mm
• Compatible with: Maxtor, Samsung, IBM, Hitachi, Seagate Hard drives

Front view



Back view

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4970	$17.95	$15.95	$14.35

SATA to USB 3.0 Adaptor

NEW 2013

If you are a downloading enthusiast or an IT professional who has accumulated a number of hard drives over the years and want a simple way to access them temporarily this adaptor is the perfect tool. When used with most enclosures and adaptors, SATA hard drives and solid state drives are limited by the speed of USB 2.0. This new USB 3.0 adaptor will take full advantage of the max speed of SATA (3.0Gbps). Transfer files or clone drives in a fraction of the time. Please note your PC must have a USB 3.0 port to support these speeds. Power supply included.

• Fully compliant with USB 3.0 specifications
• Backward compatible with USB 2.0
• Compatible with Windows 98/ME/2000/XP/ Vista/Win 7/Mac OS 9.X/10.X/Linux

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4149	$34.95	$31.45	$27.90

IDE & SATA to USB Hard Drive Adaptor

Note: HDD not included

A must have tool for PC technicians! This clever device will allow you to use an ordinary IDE or SATA disk drive on a USB 2.0 interface. You can even connect an IDE drive and a SATA simultaneously and transfer data between them. The adaptor and hard drive can be powered from the USB port for smaller (2.5") hard drives. An external power supply is included to power larger (3.5" & 5.25") drives. The adaptor has plug & play support for Windows ME, 2000, and XP. Interface cables included.

1 YEAR WARRANTY

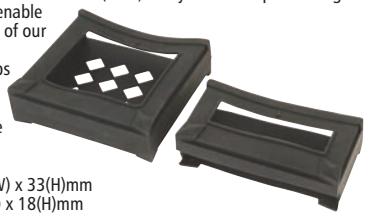
NOTE! NEW & IMPROVED

Supports:
• 2.5" IDE HDDs • 3.5" IDE HDDs
• 3.5" SATA HDDs • 5.25" IDE CD / DVD Drives

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4833	$49.95	$44.90	$39.90

Silicone Hard Drive Protectors

These silicone hard drive protector sleeves provide a layer of cushion against shock and impact for either a 3.5" or 2.5" hard disk drive (HDD). They are a two piece design with the smaller piece removable to enable the HDD to be plugged into one of our HDD docking stations, and the larger piece stays on which keeps most of the HDD still protected. Supplied in a pack of two, one designed for a 3.5" HDD and the other designed for a 2.5" HDD.



Dimensions: 3.5" 158(L) x 118(W) x 33(H)mm
2.5" 107(L) x 80(W) x 18(H)mm

	Cat.	Qty 1+
	XC-4650	$4.95

EXTERNAL HDD ENCLOSURES

2.5" HDD Enclosures for IDE or SATA Drives - USB 2.0

Instantly add gigabytes of storage to your computer or move large amounts of data from one computer to another. This external hard drive case has a USB 2.0 interface and will accept a standard 2.5" hard drive. The precision case does away with the awkward ribbon cable and the hard drive easily connects straight onto the PCB mounted connector. When fitted with a hard drive, this unit makes an ideal backup device or could even be used as a portable digital image storage unit. Comes complete with a handy carry pouch, USB cable, drivers for Win98 (no drivers needed for later versions of Windows or Mac® OS 9+), and a screwdriver for drive installation.

1 YEAR WARRANTY

• Size 127(L) x 78(W) x 13(H)mm.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4681	$19.95	$17.70	$15.70

2.5" SATA HDD Enclosure - USB 3.0

Take advantage of the massive speed increase of USB 3.0. Slot your 2.5" SATA HDD into this compact enclosure and when connected to a USB 3.0 port of a computer you will experience speeds up to 10 times faster than USB 2.0. Installation is easy, just slide the covers off and pop in the drive then secure everything with the supplied screws.

• Includes one 1.1m USB 3.0 Micro B - to Male A cable
• Locking screws included
• Dimensions: 77(W) x 113(L) x 14(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+
	XC-4684	$34.95

EXTERNAL HDD ENCLOSURES (CONTINUED)

3.5" SATA HDD Enclosure - USB 2.0

Accommodates a 3.5" SATA drive up to 3TB in storage capacity. Lightweight aluminum case for increased portability.

- USB 2.0 transfer rate up to 480Mbps
- Dimensions: 183(D) x 117(W) x 31(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4669	$34.95	$24.35	$20.70

3.5" HDD Case

This enclosure will accommodate a 3.5" HDD. There is a slot for a SATA connection at one end so it can turn into a portable hard drive you can carry around if you buy a suitable SATA to USB converter. The enclosure opens like a book and comes with 2 labelling stickers.

Great for computer technicians or IT gurus who quickly need to protect spare hard drives.

- Dimensions: 157(L) x 116(W) x 33(H)mm

RELATED PRODUCT...
For USB 3.0 adaptor to suit see page 414

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4652	$3.95	$3.45	$3.15

DOCKING STATIONS

USB 2.0 & eSATA SATA HDD Docking Station

Allows you to dock any 2.5" or 3.5" SATA hard drive for easy transfer of files through USB 2.0 or eSATA. Just slide the hard drive into the dock and it will mount as an available volume on your Windows or Mac® OS operating system. A great tool for those who regularly clone drives or need to easily swap or check the contents of SATA drives. Supports hard drive hot swapping (dependant on operating system support).

Hard Drive & Laptop not included

Includes:
- 1 x 1m eSATA Cable
- 1 x eSATA Bracket Cable
- 1 x 290cm 5-pin male mini USB to regular Male USB
- 1 x Dual 12V / 5V power supply
- Up to 480Mbps transfer rate with USB 2.0
- Up to 3Gbps transfer rate with eSATA
- 165.5(W) x 110(L) x 102(D)mm
- Supported in Windows and Mac® OS 9.X or higher.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4690	$39.95	$35.90	$31.90

USB 3.0 Dual 2.5/3.5" SATA HDD Docking Station

Hard drive docking stations provide PC users with the ability to quickly and easily backup valuable data, access old drives, clone, format and debug disk problems. They're a great tool to have around the home or office. This unit provides two SATA docking ports that can accommodate either two 3.5 or 2.5 inch SATA drives or one of each depending on your application. It is USB 3.0 ready so all your disk operations will perform up to ten times faster than on older USB 2.0 docks. High speeds and the convenience of dual docks means less time backing up.

- Dimensions: 130(W) x 61(H) x 103(D)mm

Hard Drive not included

	Cat.	Qty 1+
	XC-4697	$59.95

USB 2.0 & eSATADual HDD 2.5"/3.5" SATA Dock with Offline Clone Function

An easy way to clone drives. This dual SATA dock will accept 2 x 2.5" or 2 x 3.5" (or one of each) SATA HDDs/SSDs. Just dock a drive with a complete install of an operating system, dock an empty drive and press the big red clone button. It can also be used as a regular SATA dock for quickly grabbing data off your collection of SATA drives. The unit has one of each of the following: an eSATA port and cable, USB port and cable and a power supply.

- Supports SATA 1.5Gbps/3.0Gbps speed negotiation (3.0Gbps requires the eSATA connection)
- Supports hot swapping (operating system dependant)
- Compatible with Windows98/Me/2000/XP/Vista/7/MAC OS 9.x/10x
- USB 2.0 or eSATA connection to PC
- Dimensions: 125(L) x 112(W) x 60(H)mm

Hard Drives not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4695	$49.95	$44.90	$39.90

USB 3.0 SATA 2.5"/3.5" HDD Dock

A 2.5"/3.5" SATA dock for USB 3.0 enabled desktop PCs and laptops. USB 3.0 boasts theoretical speeds of up to 4.8Gbps, that's ten times faster than its USB 2.0 predecessor. Such an exponential improvement makes buying USB 3.0 transfer devices such as docks and external drives a no-brainer. SATA docks are particularly useful for computer technicians, IT professionals and those of you who download a lot and need to swap between drives frequently. With USB 3.0 transferring gigabytes of files around will be significantly quicker so you can get back to what you love doing most, downloading more files.

- Backwards compatible with USB 2.0
- Compatible with Windows XP/Vista/7/Mac® 9.X and higher
- USB 3.0 cable included
- Dimensions: 145(L) x 94(W) x 82(H)mm

Hard Drive not included

	Cat.	Qty 1+
	XC-4696	$39.95

USB 3.0 CloudDock with WebDav/FTP/Samba/BitTorrent

Much more than a simple hard drive dock this unit doubles as a NAS with remote login via the web. Just connect it to your router and access the devices IP address to begin setting up. The device can be run as a Samba server, webdav server, ftp server or even a media server. With webdav mode enabled you could use an android or iOS app to remotely organise files on your drive from anywhere. They can then be accessed directly using the ftp server functionality. The media server setting allows you to share a photo, music or video folder. Last but not least, you can also add torrents to download directly to the docked drive. Download queue priorities can be set, you can then be auto-mailed when a torrent is complete.

- Supports 3.5/2.5 inch SATA hard drives
- Dimensions:134(L) x 114(W) x 55(H)mm

Note: Apps are not included with the device. There are several free webdav apps on Google play store and Apple® iTunes®. Search Webdav.

Hard Drive not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4691	$119.00	$106.95	$94.95

Wi-Fi SD/USB Reader with Remote File Management

Add Wi-Fi to your storage devices. Simply connect a USB thumbdrive, USB hard drive, or an SD card to this unit and you can wirelessly manage files and stream media to a Smartphone or Tablet. Just join the Wi-Fi node, enter the IP address of the device in a web browser or through the native Android/iOS application (MobileFun) then access the SD card or USB drive wirelessly. The web interface allows you to search files for quickly finding movies or music you want to view, rename/copy/delete files, create directories and more. This can all be accomplished through the Android/iOS apps as well. The device can be connected up to a PC acting as a traditional card reader, function as a bridge (adding Wi-Fi capability to storage devices), or can be run as a Wi-Fi hotspot by connecting it to your routers Wi-Fi connection.

- Android and iOS app available (MobileFun)
- Support SDXC, SDHC and SD memory cards
- Supports USB 1.1, 2.0 & 3.0 external storage devices
- Stream media over Wi-Fi enabled devices up to 5 users simultaneously
- Search function for easily finding media
- Micro USB for charging and data transfer
- Compatible with Windows and MAC
- Up to 7 hours of continuous use (under normal operating conditions)
- MobileFun app available from Google Play or iTunes
- Supports 802.11 b/g/n speeds
- Dimensions: 118(L) x 79(W) x 14(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8425	$69.95	$62.95	$55.95

BUY IT ON THE WEB...

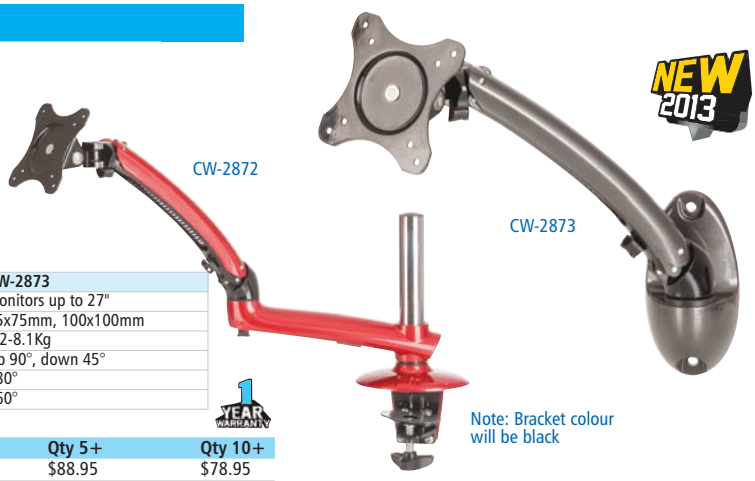
Shop for all these Jaycar Electronics products online at our website - and check out our latest products and special offers!

Monitor Brackets

MONITOR BRACKETS

LCD Monitor Articulating Desk Mount Bracket

Sleek and functional LCD brackets for your home or office desk to free up space and to give greater flexibility to your monitor position. They feature attractive articulating arms that will allow you to tilt the monitor up 90°, down 45°, pan it 180°, and rotate the monitor around a 360° range. There are also cable clips running down the arm shafts to allow you to neatly tuck away your DVI, HDMI, VGA, or power cables. We have a wall mountable model and a desk mount version available that features a C-type clamp.



Note: Bracket colour will be black

Specifications	CW-2872
Suits	monitors up to 27"
VESA	75x75mm, 100x100mm
Capacity	3.2-8.1Kg
Tilt	Up 90°, down 45°
Pan	180°
Rotation	360°
C-type clamp for a wide variety of desk thicknesses	

Specifications	CW-2873
Suits	monitors up to 27"
VESA	75x75mm, 100x100mm
Capacity	3.2-8.1Kg
Tilt	Up 90°, down 45°
Pan	180°
Rotation	360°

	Cat.	Qty 1+	Qty 5+	Qty 10+
Desk Mount	CW-2872	$99.00	$88.95	$78.95
Wall Mount	CW-2873	$89.95	$80.95	$71.95

Articulating Mounting Arms to suit Apple® iMacs® & Displays

In keeping with the stylish nature of Apple® products, we introduce two very stylish articulated mounting arms. Both are white in colour, one desk mount, the other wall mount. Both conform to the unique rear mounting arrangements of the Apple® product.

Note: To remove your current iMac® stand you must slide a thin piece of plastic or cardboard in the stand socket, this will switch a lever (you should hear an audible click) so you can turn the stand and expose screws. Then remove all screws and the stand can be taken off for attachment to the bracket.

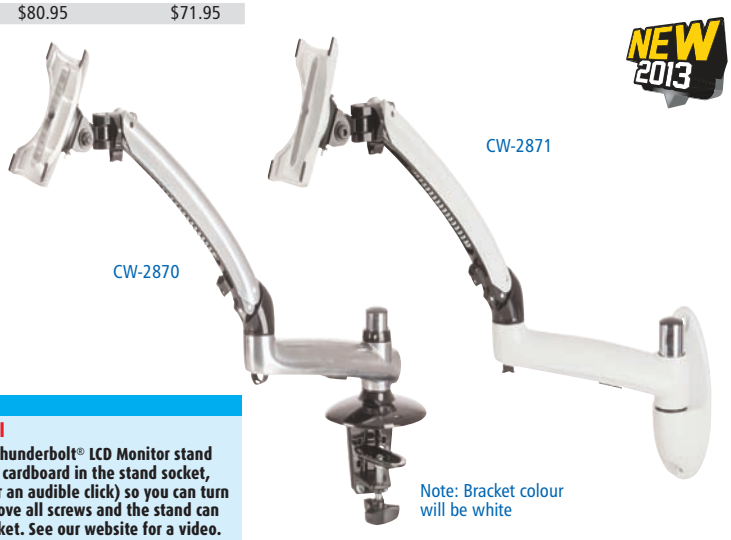
Both units will carry 14 kilograms at the maximum lift of 371mm. The maximum extension is 663mm for CW-2870 and 680mm for the CW-2871.

Compatibility:
- 27" Thunderbolt® Display
- 24" - 27" LED Cinema Display
- 24" iMac® (aluminium & glass)
- 27" iMac®

TECH TIP!

Apple® Displays Stand Removal

Note: To remove your current iMac® or Thunderbolt® LCD Monitor stand you must slide a thin piece of plastic or cardboard in the stand socket, this will switch a lever (you should hear an audible click) so you can turn the stand and expose screws. Then remove all screws and the stand can be taken off for attachment to the bracket. See our website for a video.



Note: Bracket colour will be white

	Cat.	Qty 1+	Qty 5+	Qty 10+
Desk Mount	CW-2870	$119.00	$106.95	$94.95
Wall Mount	CW-2871	$99.00	$88.95	$78.95

1 YEAR WARRANTY

LCD Computer Screen Desk Brackets

Desk space, the final frontier. If your desk is clogged with notes, manila folders and finding space is becoming a dangerous balancing act, then you need an LCD bracket. These brackets use a C-type clamp for a powerful lock onto a variety of desk thicknesses. The monitor can swivel horizontally, tilt vertically, and extends to approximately 400mm from the base. For an extra bit of customisation, the monitor can be rotated from portrait to landscape, which is especially useful for the double screen model. To bolster desk neatness, easy to open cable clips run along the structure of the bracket to house your DVI cable, monitor power cable or any other cable that requires monitor connection. Both brackets feature a sleek matte black finish for an inconspicuous blending into your desk motif.

Suitable for monitors up to 27".

SINGLE SCREEN LCD BRACKET
- VESA mounting (75mm x 75mm and 100mm x 100mm)
- Fully adjustable arms
- Rotate monitor from landscape to portrait

DOUBLE SCREEN LCD BRACKET
- VESA mounting (75mm x 75mm and 100mm x 100mm)
- Fully adjustable arms
- Rotates from landscape to portrait

Note: Monitor not included

CW-2831

Specifications	
Max load	10kg monitor
Swivel	360°
Rotate	360°
Dimensions	455(H) x 490(L)mm

CW-2833

Specifications	
Max load	10kg monitor
Swivel	360°
Rotate	360°
Dimensions	455(H) pole height, each arm 490mm(L)

1 YEAR WARRANTY

Note: Monitors not included

RELATED PRODUCT...

For our full range of Monitor Mounting Hardware see page 446

	Cat.	Qty 1+	Qty 5+	Qty 10+
Single Screen Bracket	CW-2831	$49.95	$44.90	$39.90
Dual Screen Bracket	CW-2833	$69.95	$62.95	$55.95

PC SECURITY

Combination Notebook Cable Lock

As easy as typing in four digits to unlock your phone, this laptop security cable has a four digit combination that you can customise for security. It's 1.8m long and has a swivel on the end so moving it around your desk area will not be a problem.

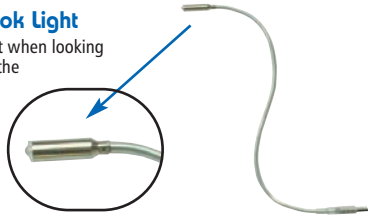
- 1.8m long
- 4 digit combination
- Steel lock mechanism

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4639	$14.95	$13.35	$11.70

NOTEBOOK LIGHTS

USB Powered Notebook Light

Use this USB port powered light when looking inside a computer, or when on the road with a laptop. Twist the head as it has a gooseneck for universal angle adjustment. This unit is powered by the USB port therefore the Laptop or PC will need to be turned on for use.



	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-2808	$9.95	$8.75	$7.75

Ultra-light USB Charged Book Reading Light

This stylish book light recharges via your USB port. Flexible positioning, 180° rotatable. Weighs only 35g. Black only. It's supplied with two brackets, one for clipping onto your notebook monitor, the other for attaching to a book.

- Measures: 110(H) x 35(W) x 15(D)mm (less clip)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	ST-2817	$6.95	$6.25	$5.50

LAPTOP COOLING - USB POWERED

Foldout Twin-Fan Notebook Cooling Pad

Designed for portability and durability this foldout twin-fan cooling pad will help keep your notebook from overheating and is made from strong steel construction that folds neatly into a compact package. Once folded out it's suitable for any size laptop and is conveniently powered via USB connection - no need for an extra power supply.

- Foldout size: 275(W) x 183(D) x 17(H)mm
- Folded size: 170(W) x 65(D) x 17(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-5216	$9.95	$8.75	$7.75

Notebook USB Cooling Pad - Very Quiet.

This notebook cooling pad simply plugs into your notebook's USB port and has an inbuilt 18cm cooling fan to dissipate heat. Having one large fan results in it being quieter than other pads with multiple small fans. Featuring four non-slip pads and an ergonomically tilted surface, you'll be typing comfortably in front of your fan-cooled notebook for hours. Its sleek curves and transparent design makes it functional and attractive.

- Measures 300(L) x 290(W) x 35(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5210	$14.95	$13.35	$11.70

Dual Fan Notebook Cooling Fan

Prevents your notebook from overheating on your lap or desk. Features a double 140mm fan and 2 USB ports. It is super silent and you will hardly notice it is there. Incredibly simple to use, just plug into your USB port and away you go! Also includes a push button on and off switch.

- Unique non slip design
- Rated voltage: 5VDC
- Dimensions: 365(L) x 295(W) x 40(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5211	$14.95	$13.35	$11.70

Portable Study Table with Notebook Cooler

Lots of applications for this handy fold-up table. Read or study in bed, at the park or anywhere else. Two work surfaces - the adjustable sloping rest can be used for a laptop or a book and the flat surface as a mouse pad or writing surface. The legs are height-adjustable and it also has a pen holder, cup holder and cooling fans for your laptop. The whole lot folds up neatly for easy transport and storage.

- Built-in laptop cooling fans
- Height adjustable
- Retractable USB cable included
- Size folded: 285(W) x 316(H) x 36(D)mm
- Size unfolded: 570(W) x 316(H) x 36(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5218	$24.95	$22.35	$19.70

TOOL KITS

Gaming Console Tool Kit

If you have ever attempted any repair or improvement on your gaming console, you know that the right tools can make the difference between a good experience and a bad one. Everything you need to get into your console and accessories. It includes tools for pretty much every console and handheld on the market today - WII, X-Box, Playstation etc. Carry case included.

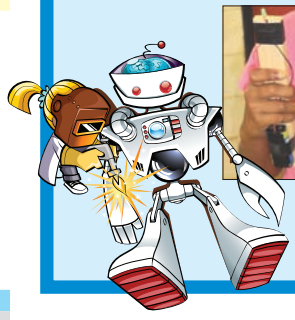
Contents:
- PH000, PH00, PH0, PH1
- Slotted 2, 3, 4mm
- T4, T5, T6, T8, T10, T15, T20, TA2, TA2.3
- TRI00, TRI0, TRI1
- Nintendo & X-Box security bits, X-Box opening tool
- Stainless tweezers, ratchet handle and adaptor

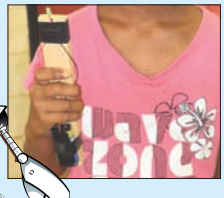
	Cat.	Qty 1+	Qty 3+	Qty 6+
	TD-2109	$29.95	$27.95	$23.70

LED Lightstick

Makers Name: Len Neale
Location: Queensland

My invention is called the LED Lightstick and it's as simple as you can get. What to know more? Scan the QR Code...





For more details scan the QR code or go to www.jaycar.com.au/makers

Keyboards & Mice

KEYBOARDS

Black USB Keyboard

This incredibly flat and light QWERTY keyboard. Change the inclination with the two stands that are discreetly tucked away on the sides.

- Supports API or APM II
- Dimensions: 440(L) x 125(W) x 20(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5146	$9.95	$8.75	$7.75

Roll Up QWERTY Keyboard

A flexible and virtually indestructible QWERTY keyboard. The moisture-resistant silicone allows you to spill as much as you like with no effect on function. Dropping donut crumbs into more traditional keyboards requires tediously removing keys to clean out the mess. The bendable silicon allows for easy transportation and the material creates a soundless typing experience. Perfect for industrial or wet areas such as factories, labs, workshops, restaurants, shops and food preparation areas. As it rolls up into a compact bundle, it's also ideal for travellers.

- USB interface
- Can be rolled up to 135(H) x 80(Dia)mm
- Laid out dimensions: 405(W) x 135(D) x 10(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5172	$14.95	$13.35	$11.70

2.4GHz Wireless Keyboard & Mouse

An all-in-one wireless keyboard and mouse solution. Features Qwerty keyboard and an ergonomically designed mouse with scroll wheel. A nano sized USB receiver is tucked into the base of the mouse for connection to your PC.

- Operating range: Up to 10m
- Operates on the 2.4GHz spectrum
- Mouse: 2 x AAA batteries (included) / Keyboard: 1 x AAA battery (included)
- Supports Windows and Mac®
- Keyboard dimensions: 435(L) x 125(W) x 18(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5174	$24.95	$22.35	$19.70

Mini 2.4GHz Wireless Keyboard with Trackball

Perfect for use as an advanced "remote control" for your Internet enabled TV or home media PC. Navigating through web pages on the big screen from the couch will need more than your standard up/down/left/right remote. This handy keyboard features the full QWERTY key layout and a brilliant little trackball and mouse scrollwheel. It also has those handy media shortcut keys, play, pause, fast forward/rewind and volume controls etc. Operates on the popular 2.4GHz band for easy wireless access. Includes nano sized USB dongle.

- Features a low battery power LED indicator
- Operation range: 9m
- Includes 2 x AAA batteries
- Dimensions: 261(L) x 112(W) x 30(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4943	$49.95	$44.90	$39.90

Mini Bluetooth® Keyboard with Built-in Trackball & Scroll Wheel

NEW 2013

Make typing a breeze with our compact, wireless QWERTY keyboard. Use Bluetooth® to connect it to a wide variety of mobile phones, tablets, smart TVs, media centres or PCs. Effortlessly navigate and control your onscreen interface with the built-in trackball and scroll wheel. Or sit back in your favourite arm chair, relax and enjoy your favourite TV shows or movies using the media shortcut keys. Note: full functionality of the keyboard may be limited by your device.

- Low battery power LED indicator
- Operation range: 10m
- Includes 2 x AAA batteries
- Dimensions: 261(L) x 112(W) x 30(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4945	$49.95	$44.90	$39.90

Bluetooth® Foldable Keyboard

NEW 2013

One of the niftiest products we have seen in a long time! This full 66 key keyboard folds in half from a 285mm to a modest 133mm so it's easy to transport without damaging the keys.

- 17mm pitch and 3.3mm tactile push feel
- 10,000,000 life cycle
- Bluetooth
- Super long standby - up to 2 months
- Requires 1 x AAA alkaline battery
- Supports Mac OS X(10.5-10.5.8,10.6-10.6.7), iPad2®, iPad®, iPhone4®, iPhone 3GS®, the fourth generation of iPod Touch®, the third generation of iPod Touch® (32GB, 64GB) Playstation3® (software version 3.66)
- Dimensions
- Folded: 133(L) x 100(H) x 24(D)mm
- Open: 285(L) x 100(H) x 12(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-5202	$39.95	$35.90	$31.90

Universal Remote Control with Keyboard

As televisions morph into fully connected displays that can perform most of the functions of a simple PC, the need for remote controls with greater functionality becomes evident. This unit combines the key layout of a standard remote for controlling TVs, Blu-ray/DVD players and when you flip it over you have a full QWERTY keyboard with optic finger navigation for typing text into web browsers, using instant message programs on your smart TV/media player, or playing games. It is a learning remote so it's easy to give it the capability of all your remote controls in the one simple package.

Front

- 41 keys for remote
- 42 keys for keyboard
- Optic finger navigation
- IR receiver
- Includes 2 x CR2025 batteries
- Dimensions: 167(L) x 51(W) x 15.3(D)mm

Rear

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1723	$34.95	$31.45	$27.90

MICE

3 Button Optical Mouse

A low profile, ergonomic 3-button optical mouse. Simple and easy to use.

- Resolution: 1000 DPI
- Zoom-in, zoom-out; page up, page down
- Plug and play
- Windows and Mac® compatible

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5243	$9.95	$8.75	$7.75

USB 5 Button Optical Mouse

NEW 2013

All the normal mouse functions - left and right click, scrolling, plus forward, back and quick-launch button as well as a scroll wheel. Ergonomically shaped for fatigue-free use.

- Resolution: 800/1200/1600
- Plug and play - no drivers required
- Compatible with Windows and Mac®

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5241	$17.95	$15.95	$14.35

USB 5 Button Laser Mouse

All the normal mouse functions - left and right click, scrolling, plus forward, back and quick-launch button. Ergonomically shaped for fatigue-free use.

- Plug and play - no drivers required
- Windows 2000, XP, Vista, 7

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5240	$17.95	$15.95	$14.35

MICE (CONTINUED)

5 Button Wireless Optical Mouse

A compact, 5 button wireless optical mouse with nano dongle that tucks away neatly into the base. Great for travellers.

- 2.4GHz Wireless
- 1000/1500/2000 DPI conversion with indicator
- 4th and 5th buttons can be custom assigned functions
- Multi-stage power saving modes
- Windows and Mac® compatible

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5248	$24.95	$22.35	$19.70

Bluetooth® 3 Button Optical Mouse

NEW 2013

Battery operated Bluetooth® mouse with 3 functional buttons. Low battery indicator but with its energy saving A3000 optical sensor you will find the battery can last up to 13 months.

- 2.4GHz bidirectional transmission technology, up to 30m
- Avago A3000 optical sensor, energy saving
- IR sensor, super strong to pass surfaces
- CPI: 1000/1500/2000, (DPI indicator) free to change the speed
- Low battery indicator
- Super energy saving, battery can last up to 13 months
- No friction wheel to wear out
- Plug and play / Ergonomic design
- Windows and Mac® compatible
- Dimensions: 97(L) x 64(W) x 38(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5244	$29.95	$26.90	$23.70

Mouse Pad

- For all your mousing around
- Dimensions: 260 x 200 x 4mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XM-5097	$2.95	$2.60	$2.30

WEB CAMERA

Budget 300k Web Camera

No built-in camera on the laptop? Add one at minimal cost and podcast away. Microphone included, plug and play. Low cost solution.

- Supported in Windows XP, Vista, 7
- No drivers required
- Size: 32(W) x 42(H) x 28(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
300K	QC-3235	$14.95	$13.35	$11.70

High Definition 720p Web Camera

NEW 2013

Quickly whip up a 720p video for your next website on YouTube. Featuring a five-layer lens, high-resolution CMOS sensor and auto focus your videos will look stunning every time. Or use it for video conferencing or webcam chat.

Features:
- HD 720P Video Recording. (Max Resolution 1280x720).
- High quality 5MP wide angle lens.
- Multi-functional clip.
- Built-in high sensitive stereo microphone.
- Snap shot button for image capture.
- Up to 12 Mega Pixel photo resolution. (Software enhanced).
- Multi-utility camera base.

	Cat.	Qty 1+	Qty 4+	Qty 10+
720p	QC-3203	$29.95	$26.90	$23.70

High Definition 1080p Web Camera

NEW 2013

A high resolution web camera for Skyping, making YouTube videos, and other on or offline activities. The unit has an inbuilt mic so you don't have to wrap a clunky headset around your head when video chatting online. It's capable of taking 12MP still images (Software enhanced). The foldable stand allows it to comfortably sit on top of a CRT, laptop, or LCD monitor.

Features
- Full HD1080P Video Recording (Max Resolution 1920x1080).
- High quality 5MP wide angle lens
- Multi-functional clip, 360 degree rotation
- Built-in high sensitive stereo microphone
- Snap shot button for image capture
- Up to 12 Mega Pixel image capture. (Software enhanced)
- Multi-utility camera base
- 360 degree rotation
- Built-in microphones with automatic noise reduction

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
1080p	QC-3205	$39.95	$35.90	$31.90

USB HUBS

A range of USB 2.0 hubs for any budget or application. Powered by the USB port and all include a lead. Supported by the latest operating systems - Windows 7, XP, & 2000.

Budget 4 USB 2.0 Port Star Hub

Star shaped 4 port hub. Compact design to reduce desk clutter with power indication LED.

- Dimensions: 50(W) x 50(L) x 15(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4302	$12.95	$11.35	$10.35

USB 2.0 4 Port 2 Way Hub

NEW 2013

No more second guessing which way to insert your USB cable. You can insert your cable either way. Connect up to four devices.

- USB 2.0 compliant

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4304	$19.95	$17.70	$15.70

USB 2.0 Mini 4 Port Hub

Add up to four USB peripherals without loss of speed.

- 5VDC 2A required for powered option
- Dimensions: 83(W) x 16(H) x 32(D)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4864	$19.95	$17.70	$15.70

USB 2.0 10 Port Hub

Ten, count 'em, ten USB ports. That should be enough for anyone. The two position switch turns all ports on, or only ports 7 - 10. This means you can turn off non-essential peripherals while maintaining power to others - LED indicators tell you which group is live. 5VDC 3A plugpack included for powered operation.

- USB 2.0
- USB or mains powered
- Key holes for wall mounting
- Windows & Mac® OS compatible
- Dimensions: 172(L) x 36(W) x 27(H)mm

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4946	$49.95	$44.90	$39.90

USB 3.0 4 Port Hub

If you've made the upgrade to USB 3.0, you'll need a hub to run all your new peripherals. This one has four ports and provides a 4.8Gbps data rate, 470,000 times faster than RS-232 and significantly faster than USB 2.0.

- USB 3.0 lead included
- Mains plugpack included
- Windows XP, Vista and 7
- Dimensions: 85(L) x 32(W) x 18(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4947	$69.95	$62.95	$55.95

Memory Card Readers / Interface

MEMORY CARD READERS

Compact USB 2.0 Multi-Card Reader

NEW 2013

Designed for convenience this USB multi-card reader is small enough to attach to your keyring. Despite its size it accepts a wide variety of popular formats. To use simply fold out the USB adaptor, fold back for easy storage or travel.

- Fold away USB adaptor
- Supported card formats: MS/MS Pro Duo/ M2/T-Flash/microSD/SDHC/SD/MMC/RS MMC/Mini SD
- Dimensions: 40(L) x 34(W) x 15(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4749	$12.95	$11.35	$10.35

All-in-1 USB 2.0 Card Reader

NEW 2013

This USB card reader reads most memory cards in use today, including: SD, microSD, SD Ultra II, SD Extreme III, MMC, MMC II, MMC 4.0, RS-MMC, HS RS-MMC, MMC Micro, M2, MS, MS Pro, MS Pro Duo, MS Extreme Pro, MS Extreme III Pro, MS Ultra II Pro, HS MS-MG Pro HS MS-MG Pro Duo, MS ROM, MS Select, XD, XD(M), XD(H), CF I & II, CF Ultra II, CF Extreme III, CF Extreme, HS CF & Micro-drive.

- Plug and play
- USB 2.0
- Dimensions: 68(L) x 40(W) x 13(H)mm
- USB cable included

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4926	$19.95	$17.70	$15.70

RELATED PRODUCT...
See our NEW Cards Readers for iPads® page 392

USB 3.0 SDXC Card Reader

The SDXC standard allows SD card storages of up to 2TB and transfer speeds up to 80Mbps. For dealing with capacities of this size, USB 3.0 is the only choice. It will greatly speed up the transferring of large files from a digital video camera, phone etc. It's also backward compatible with SDHC and all older versions of the SD Card format.

- Compatible with Windows XP, Vista, 7 (32/64-bit)
- Plug and play, hot swappable
- Dimensions: 65(L) x 65(W) x 14(H)mm

Supports the following SD cards:
Secure Digital (SD), Elite Pro SD, Extreme III SD, Gaming Edition SD, Platinum II SD, SD Pro, SDHC, SDXC,SD-Max, SD-Pleomax, SD-Pro C, Super SD, Turbo SD, Ultima I SD, Ultima II SD, Ultimate SD, Ultra High Speed SD, Ultra II SD, Ultra II SD Plus,
Ultra SD, Ultra-X SD, OV-RS MMC, High Speed MMC I RS-MMC, MCCmobile, MMC Pro, MMCplus, MMCplus Turbo, RS-MMC, microSD

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4755	$14.95	$13.35	$11.70

USB 3.0 Memory Card Reader

NEW LOWER PRICE

This card reader accommodates all the mainstream memory cards including the new SDXC and CF600x standards.

- Includes 1 x USB 3.0 cable
- LED indicator
- Hot swappable
- Supports the following memory cards
- Compatible with XP, Vista, 7 (32/64-bit)
- Dimensions: 86(L) x 58(W) x 21(D)mm

CF Slot:
Compact Flash Type I/II, CF Elite Pro, CF PRO I,CF PRO II, CF Turbo, CF Ultima I,CF Ultima II, Extreme CF, Extreme III CF, HS CF, Ultra II CF
MS Slot:
MS, MS DUO, MS PRO, MS PRO DUO, MS MagicGate, MS MagicGate PRO, MS MagicGate DUO, MS MagicGate PRO DUO, Extreme MS PRO, Extreme III MS PRO, Ultra II MS PRO, HS MS MagicGate PRO, HS MS MagicGate PRO DUO, MS ROM, MS Select
SD Slot:
SecureDigital (SD), Elite Pro SD, Extreme III SD, Gaming Edition SD, Platinum II SD, SD Pro, SDHC, SDXC,SD-Max, SD-Pleomax, SD-Pro C, Super SD, Turbo SD, Ultima I SD, Ultima II SD, Ultimate, SD, Ultra High Speed SD, Ultra II SD, Ultra II SD Plus, Ultra SD, Ultra-X SD, DV-RS MMC, High Speed MMC/ RS-MMC, MCCmobile, MMC Pro, MMCplus, MMCplus Turbo, RS-MMC
micro SD / M2 Slot:
microSD (TransFlash), microSDHC / M2

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4757	$29.95	$26.90	$23.70

AUDIO CONVERSION TO DIGITAL

RCA to USB Digital Converter

Studio quality recording solution. Suitable for converting any line-level audio device to USB for stereo PC recording. RCA to USB converts analogue to digital audio in high resolution. Simply install Magix Audio Cleaning Lab SE & Audacity software included to import your music & optimise sound recording quality.

- 16-bit 44.1kHz digital audio output
- Gold plated terminals
- Recording software included
- Suitable for PC & MAC
- Cable Length: 1.2m

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 3+	Qty 6+
GE-4050	$34.95	$31.45	$27.90

USB INTERFACE / DATA CABLES

USB MIDI Interface Cable

Connect any MIDI device to your computer: keyboards, controllers, instruments, sound cards, samplers, drum machines etc. Plug and play, no software or drivers required. MIDI in and MIDI out connectors with LED indication.

- Cable is 2 metres long.

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-4934	$29.95	$26.90	$23.70

MULTIMEDIA SPEAKERS

USB Powered PC Speakers

Portable USB-powered speakers for use with laptops, desktop PCs or mobile music players. Contemporary, space saving design with plug and play functionality. Separate volume control, power switch and headphone output, and as they're powered via your computer's USB, there's no need to use a plug pack or batteries.

Specifications	
Power output	1.8WRMS
Frequency response	160Hz - 20kHz
Impedance	6Ω
Dimensions	154(H)x75(W)x36(D)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-5191	$14.95	$13.35	$11.70

Active Speakers

Sleek contemporary design with crystal clear sound quality to match. These speakers are a great way to project sound from your PC, iPod®, MP3 player or mobile phone. The standing design assists in creating a rich and vivid audio experience wherever you are. Easily accessible volume and treble controls and simple plug and play functionality make these speakers an ideal and affordable audio solution.

Specifications	
Power output	5WRMS
Driver size	3"
Dimensions	235(H) x 74(W) x 54(D)mm

Cat.	Qty 1+	Qty 4+	Qty 10+
XC-5181	$19.95	$17.70	$15.70

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

BUSINESS CARD SCANNER

USB Business Card Scanner

Scan and organise business card contacts simply to your computer. It is powered by USB and uses a 2MP sensor with fixed focus to capture clear images. The included Optical Character Recognition software extracts text from the business card then categorises the information into different fields, which can be linked to your mail client (eg. Outlook). Compact and portable, and doubles as a webcam with microphone. Supplied with a mini USB lead.

- Export to mail clients like Outlook
- Identifies text fields for Company name, Address, Phone number and more
- Supports multiple languages
- Sensor: 2MP
- Interface: USB 2.0
- Still Image: BMP/JPG
- Illumination requirements: 150 to 2 Lux
- Operating System: Windows, Linux & MAC
- Dimensions (folded): 95(L) x 37(W) x 14(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QC-3130	$49.95	$44.90	$39.90

DIGITAL TV

Economy USB Digital TV Stick

Digital TV on your PC for under fifty bucks and a bundle of extra features including Picture-in-Picture, still and video image capture and much more. Easy to install and use and no bigger than a USB stick.

- Digital TV and radio program recording
- Real-time video recording
- Still image capture
- Picture-in-picture function
- One-touch channel scan
- Multi-lingual installation (WOW!)
- System requirements:
  Windows XP/2000/Vista
  128MB RAM

Requirements for Picture-in-Picture:
DirectX 9 compliant (VMR9) VGA card
USB 2.0 port

Not Available in New Zealand

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4888	$29.95	$26.90	$23.70

CONVERT VIDEO TAPE TO DIGITAL

Economy DVD Maker

An easy to connect USB to video adaptor which allows you to capture high quality video and audio through a USB 2.0 interface to burn your own high definition DVD/VCDs. It's capable of real time recording MPEG 4/2/1 video formats. The compact size makes it ideal to take along anywhere. Operating couldn,t be easier; with the one touch grabber; simply push the button to start and push again to stop.

System requirements
- Pentium-IV 1.6GHz or higher (recommended)
- 256MB RAM
- Graphics card (must support DirectX 9.0c)
- Sound card
- 1GB free HD space
- Microsoft Windows XP / Windows Vista

Specifications	
Interface	USB 2.0
Video Input	Composite (RCA), S-Video
Audio Input	RCA Audio in
Capture video sources	VHS, V8, Hi-8, etc
Video and video formats	DVD, SVCD, VCD, MPEG-4, AVI, WMV, WMA, MP3
Image formats	JPEG, BMP
Dimensions	52(L) x 50(W) x 27(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4991	$39.95	$35.90	$31.90

USB 2.0 DVD Maker

Turn your aging collection of VHS and Betamax video tapes into new video productions or record live video straight to your DVD or CD burner. This powerful video recording and editing system will help you make your own DVD movies or family documentaries and uses the latest MPEG-4 compression to produce high-quality real-time recordings from practically any AV source. The powerful editing software lets you add colour and transition effects as well as sound tracks and titles to your work. Send copies of your completed movies on DVD or VDC to your friends and family and keep them up-to-date with the goings-on at home. The USB interface makes connection a snap so you can be making movies and editing them in no time. Powered by the USB connection.

- Supports USB 1.1 & 2.0 Plug-and-Play
- Resolution up to 720 x 576 @25 fps (PAL) or 720 x 480 @30fps (NTSC)
- Composite Video input via RCA connector or S-Video mini-DIN
- Stereo audio input via RCA connectors
- Audio output via 3.5mm stereo plug
- Capture box: 35(W) x 95(D) x 15(H)mm

Minimum System Requirements:
- P4 1.6GHz, 256MB RAM
- Windows XP, 2000 & Windows 7
- DVD or CD burner
- Compatible Card

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4867	$59.95	$53.95	$47.90

USB Cassette Player with Digital MP3 Encoding Using a PC

Transform your beloved cassette tape collection into digital MP3 format directly via a PC. This versatile music box features cassette playback, high quality amplified speakers, crystal clear AM/FM tuner, blue backlight LCD and alarm clock functions. It also comes complete with USB cable and easy to use Audacity software to convert your tapes to MP3.

- Play/record music directly to PC via USB
- Blue backlit LCD panel
- Store up to 30 FM stations
- Built-in amplifier and stereo speakers
- Line in & headphone jack
- USB cable and Audacity software included
- Windows compatible
- Dimensions: 250(W) x 204(D) x 85(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4140	$79.95	$71.95	$63.95

RELATED PRODUCT...
See page 442 for other MP3 Encoders

Portable Cassette Tape to MP3 Encoder with PC Connection

Dust off your old cassette tapes and rescue your retro-chic 80's and 90's music collection with this tape to MP3 encoder. Simply install the included software to your computer, plug in the encoder via USB and you're ready to digitally convert, restore and archive all your precious cassette music. Digitally remaster the soundtracks of your youth to enjoy and share on CD, YouTube, iPod®, iPhone® etc.

- Supplied with USB cable, simple to follow instructions, plus software: MAGIX Audio Cleaning Lab SE and Audacity.
- Play, stop, rewind and fast forward buttons
- Small, compact and portable for play and transfer anywhere
- Converts to MP3 or WAV file formats with track recognition
- Plays chrome and normal cassette tapes
- Includes headphone socket
- PC requires 1 x USB port and 1 x CD drive
- Windows compatible software
- Powered from USB port or requires 2 x AA batteries
- Size: 118(W) x 93(L) x 32(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4071	$69.95	$62.95	$55.95

Media

MEDIA - SD CARDS

MicroSD Memory Cards with Adaptor

NEW 2013

These MicroSD card is fully compliant with SD spec V1.1 and offer high write speed, lower power consumption, and superior performance. Supplied with a standard SD adaptor so you can use them in a standard card slot or reader.

- Class 4 unless stated
- Weight: 2g
- Call for latest pricing.
- Size: 15(L) x 11(W) x 1(H)mm

Contact us for latest pricing

NEW LOWER PRICE

1 YEAR WARRANTY

Transcend

	Cat.	Qty 1+	Qty 4+	Qty 10+
2GB	XC-4998	$7.95		
8GB	XC-4982	$13.95		
8GB (Class 10) NEW	XC-4983	$17.95		
16GB	XC-4984	$24.95	$22.35	$19.70
32GB NEW	XC-4986	$46.95		

TECH TIP!

SPEED CLASS RATING

Speed class ratings of miniSD, microSD, SD & SDHC cards indicates the minimum performance to record video.

Class	Min. Performance	Suitable For
Class 2	2MB/sec	SD video recording
Class 4	4MB/sec	HD video recording
Class 6	6MB/sec	Up to HD video recording
Class 10	10MB/sec	Full HD or consecutive HD still capture

MEDIA - FLASH DRIVES

Micro USB Thumbdrives

NEW 2013

XC-5612

Super slim USB micro thumbdrive that measure only 32mm long and less than 3mm thick. Attach to your keyring and have a memory card wherever you go.

- Windows and MAC compatible
- Plug and Play
- USB 1.1 and 2.0
- 5 year warranty

NEW LOWER PRICE

5 YEAR WARRANTY

Contact us for latest pricing

	Cat.	Qty 1+
8GB	XC-5612	$8.95
16GB	XC-5614	$19.95
32GB NEW	XC-5615	$34.95

MEDIA - DVDS

Verbatim DVD 8.5GB Dual Layer 2.4x

Verbatim DataLifePlus (AZO)

- 8.5 Gigabytes of storage capacity on a single sided disc. No need to flip the disc
- Advanced AZO recording dye optimizes read/write erformance
- Largest compatible DVD back-up & data archiving format
- Record 4 hours of DVD quality television and video (16 hours VHS quality)
- Limited Lifetime Guarantee

LIFETIME GUARANTEE

Contact us for latest pricing

	Cat.	Qty 1+
Single DVD+R	XC-4744	$2.75
Single DVD-R	XC-4743	$2.75

Verbatim DVD-RW 4.7GB Single 4x

Verbatim DataLifePlus (SERL) DVD-RW

4.7GB Jewel Case Singles 4x

- 4x DVD-RW recording speed (version 1.2)
- Re-recordable up to 1,000 times
- Super Eutectic Recording Layer optimises read/write performance and durability
- Superior Archival Life
- Limited Lifetime Guarantee

LIFETIME GUARANTEE

Contact us for latest pricing

	Cat.	Qty 1+
Single	XC-4732	$1.55

Verbatim DVD+RW 4.7GB Single 4x

Verbatim DataLifePlus (SERL) DVD+RW 4.7GB Jewel Case Singles 4x

- Certified by leading drive manufacturers
- Largest compatible DVD back-up and data archiving format for computer drives
- Super Eutectic Recording Layer optimises read/write performance and durability
- Record 4 hours of DVD quality television and video (16 hours of VHS quality)
- Ideal for archiving home movies
- Limited Lifetime Guarantee

LIFETIME GUARANTEE

Contact us for pricing

	Cat.	Qty 1+
Single	XC-4734	$1.55

Verbatim DVD+R 16x

Verbatim DataLifePlus (Azo) DVD+R 4.7GB Jewel Case Singles 16x

- Compatible with 1X-16X DVD+R Hardware
- Record 4.7GB or 120 minutes of data and video in approximately 5 minutes
- Advanced AZO recording dye optimises read/write performance
- Ideal for recording up to 2 hours of DVD quality home movies and video clips
- Archive and back up, up to 4.7GB of important data
- Compatible with 16X DVD+R drives from Sony, Dell, HP, Compaq and others
- Read compatible with most DVD-ROM drives and DVD video players
- Limited Lifetime Guarantee

LIFETIME GUARANTEE

Contact us for latest pricing

	Cat.	Qty 1+
Single	XC-4733	$0.95

Verbatim DataLifePlus (Azo) DVD-R 4.7 GB Jewel Case Singles 16x

- Compatible with up to 16X DVD-R Hardware
- Advanced Azo recording dye optimizes read/write performance
- Ideal for recording up to 2 hours of DVD quality home movies and video clips
- Archive and back up, up to 4.7GB of important data
- Compatible with 16X DVD-R drives from Pioneer, Apple, Sony, Panasonic and others
- Read compatible with most DVD-ROM drives and DVD video players
- Limited Lifetime Guarantee

LIFETIME GUARANTEE

Contact us for latest pricing

	Cat.	Qty 1+
Single	XC-4731	$0.95

Verbatim DVD+R DL 8.5GB 8x Spindle 10 Pack

LIFETIME GUARANTEE

Double the storage capacity with two AZO recording layers on a single-sided disc - no need to turn the disc over.

- Huge 8.5GB capacity - records 240 mins of DVD quality television and video (960 mins of VHS quality)
- Supported by high speed Double Layer writers, up to 8X speed
- Compatible with DVD+R DL drives from leading manufacturers
- Ideal for archiving home movies
- Limited Lifetime Guarantee

Contact us for latest pricing

	Cat.	Qty 1+
10 Pack	XC-4746	$23.95

Verbatim DVD 4.7GB Inkjet Printable 50 Spindle 16x

LIFETIME GUARANTEE

- 1X to 16X DVD recording speed
- Full-colour, high resolution, photo-quality printing
- Superior ink absorption
- Crisp & clear text reproduction
- Excellent ink drying time
- Compatible with inkjet disc printers from Primera, Microboards, Epson and others.
- Advanced AZO recording dye optimises read/write performance
- Superior Archival Life
- Limited Lifetime Guarantee

Contact us for latest pricing

	Cat.	Qty 1+
50 Disks DVD-R	XC-4738	$29.95
50 Disks DVD+R	XC-4745	$29.95

MEDIA - BLU-RAY

Verbatim Blu-Ray Discs 25GB Single

Blu-ray discs are designed for storing and playing back high definition video but the 25GB discs are also great for backing up valuable data. XC-4748 is rewriteable so you have extra flexibility in the event of burning the wrong data or for general re-use. High quality Verbatim super hard coat gives extra protection for general use. Case included.

Contact us for latest pricing

	Cat.	Qty 1+
BD-R 4x	XC-4747	$3.95
BD-RE 2x	XC-4748	$6.50

TECH TIP!

BLU-RAY

This format offers an immense storage capacity (up to 50GB) that is perfect for high-definition video recording and distribution, as well as for storing large amounts of data. The format shares the same form factors as existing CD and DVD optical discs allowing for backwards compatibility.

Due to the enormous data capacity the Blu-ray disc format can store HD-video in the highest possible quality. Depending on the encoding method, there is room for more than 7 hours of the highest HD-quality video.

MEDIA - CD

Verbatim Datalife 80min 700MB CD-R Jewel Case Singles 52x

- Approved high speed 52X recording
- Compatible with leading manufacturers CD-R drives
- Ideal surface for personalising CD with marker or labels
- Long archival life
- Limited Lifetime Guarantee

Contact us for latest pricing

	Cat	Qty 1+
Single	XC-4707	$1.10

Verbatim DataLifePlus CD-R 80min/700MB Inkjet Printable 50 Pack Spindle 52x

- Photo quality inkjet printable
- 52x recording
- Bright white surface
- Print pictures and text directly on the disc
- Compatible with direct CD/DVD inkjet printers
- Limited Lifetime Guarantee

Contact us for latest pricing

	Cat	Qty 1+
50 Disks	XC-4718	$21.95

STORAGE

Slimline CD/DVD Mailing Sleeve

PACK OF 10

Mail your precious CDs without fear of damage with this flexible clam style protector. The mailer has a clear window and centering spigot to securely hold the CD in place. Measures 125mm x just 4.5mm thick which won't crack and break like the average jewel case.

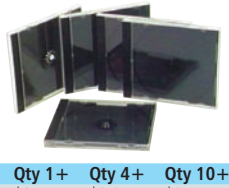
- Colour is opaque

	Cat	Qty 1+	Qty 4+	Qty 10+
Pkt 10	AR-1480	$5.95	$5.25	$4.75

CD/DVD Jewel Cases For Single Disk

PACK OF 5

Replacements CD case for those that break or wear out.



	Cat	Qty 1+	Qty 4+	Qty 10+
Pkt 5	AR-1470	$3.45	$3.05	$2.75

Coloured CD/DVD Jewel Cases

PACK OF 7

See through coloured DVD jewel cases. One of each colour. blue, green, purple, red, yellow, clear & black.

	Cat	Qty 1+	Qty 4+	Qty 10+
Pkt 7	AR-1481	$3.95	$3.45	$3.15

LCD Screen Cleaning Kit

Keep your computer, TV and other LCD screens clean. Remove dust and fingerprints without streaking, scratching or staining.

- Elastic anti-static brush
- Special microfibre material which is capable of preventing panel scratch and will not harm LCD protective coating

	Cat	Qty 1+	Qty 4+	Qty 10+
	AR-1418	$11.95	$10.70	$9.50

CLEANING SYSTEMS

CD/VCD/DVD Lens Cleaner

If you experience jumping, loss of quality or disc failure, then it's probably because your lens are dirty. This easy to use laser lens cleaner not only cleans your CD or DVD equipment, but it also shows a short animation while you wait. Supplied in a jewel case.

	Cat	Qty 1+	Qty 4+	Qty 10+
	AR-1416	$11.95	$10.70	$9.50

Screen Cleaner Kit for Small Devices

This handy screen cleaner is suitable for all small screens including iPhone®, mobile phones and cameras. The unique cleaning solution removes fingerprints, dust and stains without scratching the screen. Supplied with a washable microfibre finger cloth and a 12ml cleaning solution bottle. Small and compact design.

iPhone® not included

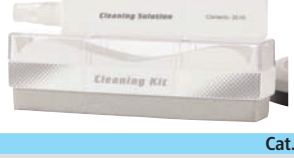
- Drip-free cleaning solution
- Includes 12ml cleaning solution bottle
- Dimensions: 90(H) x 45(W) x 22(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1415	$4.95	$4.45	$3.90

Screen Cleaning Kit

Removes dust and fingerprints from LCD screens effectively without streaks, scratches or stains. The three sided cleaner has a soft microfibre cloth to prevent scratches, and the cleaning solution has a unique formula for an effective clean. The screen cleaner and cleaning solution pack away for easy storage.

- Includes 25ml cleaning solution bottle
- Dimensions: 150(L) x 45(H) x 30(D)mm



Screen not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1417	$6.95	$6.25	$5.50

SPECIAL NOTE RE MEDIA PRICES

When the ink dries at the catalogue printers, the prices are set for the life of the catalogue - 12 months. The price of media (ie. SD cards, flash drives, DVD etc) rarely stays fixed for more than a few months. If you think some of the prices shown on this page & page 422 are a bit high, don't be dismayed. The prices have probably changed - downwards! Check with your local store or Techstore for the latest price.

Networking / Telecom Accessories & Tools

LINE FILTERS AND ADAPTORS

ADSL2+ Line Filters

If you have an ADSL2+ Internet connection, you'll need a compatible filter to keep unwanted noise from the phone or fax line. ADSL filters are not suitable as they don't allow the 2.2MHz bandwidth required for ADSL2+ and you won't get the full speed of your connection. Three different types available, a single in-line filter for use with extra phones or fax line, a filter/splitter for use with the primary line with the modem and phone line connected to it and a central filter for use when an alarm dialler or large number of phone outlets exist. Complies with ACIF S041.

ADSL2+ IN-LINE FILTER:
Cat. YT-6091

ACMA Approved

ADSL2+ FILTER/SPLITTER:
Cat. YT-6093 (NOT AVAILABLE IN NEW ZEALAND)

ADSL2+ CENTRAL FILTER:
Cat. YT-6099 (NOT AVAILABLE IN NEW ZEALAND)

YT-6091

YT-6099

YT-6093

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6091	$16.95	$14.95	$13.35
YT-6093	$22.95	$20.35	$18.35
YT-6099	$35.00	$31.45	$27.95

Cat5 UTP Splitter

Cat5 splitters enable two different devices to share the same Cat5 cable. They are usually used in pairs, one at each outlet. Please note: you can't use this device to run two computers from one network port: you'll need a network switch for that. This product is unsuitable for gigabit networks.

ACMA Approved

Cat.	Qty 1+	Qty 4+	Qty 10+
YT-6090	$16.95	$14.95	$13.35

A Home Telephone Exchange

Makers Name: Jake Abbott
Location: Queensland

This telephone exchange lets you connect multiple phones around your house to your phone lines. You can also have different phones working on different telephone lines. It also has a switch to control whether your phone rings. For example, you could turn your phone off at night so it won't ring.

For more details scan the QR code or go to www.jaycar.com.au/makers

Modular Double Adaptor - RJ12

Connect two telephones to the one socket.

- 6P/4C

ACMA Approved

RJ12 6P/4C

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6056	$5.95	$5.25	$4.75

Modular Double Adaptor - RJ45

RJ45 8P/8C plug to two sockets. Wired straight through - pin #1 to pin #1.

ACMA Approved

RJ45 8P/8C

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6082	$11.95	$10.70	$9.50

Modular Triple Adaptor RJ12 6P/4C

RJ12 plug to 3 sockets. Allows connection of 3 products to the 1 unit.

ACMA Approved

RJ12 6P/4C

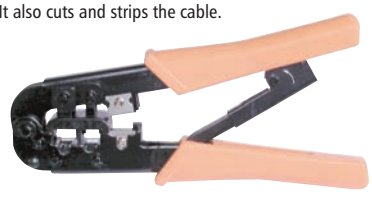
Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6057	$12.95	$11.35	$10.35

CRIMPING TOOLS

6P/8P Modular Crimp Tool

This tool will crimp the following plugs: 6P2C, 6P4C - RJ12, 6P6C - RJ12, 8P - RJ45.

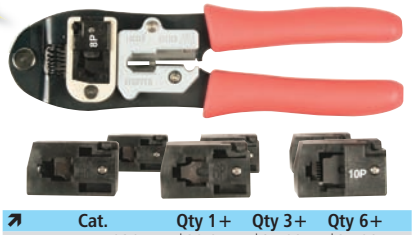
- It also cuts and strips the cable.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1935	$19.95	$17.70	$15.70

4P/6P/8P/10P Modular Crimp Tool

This great tool will cut, strip and crimp flat telephone cable, or Cat5e type cable also. Constructed from high quality carbon steel, it features interchangeable dies and ergonomic design. It also has a brace to lock them closed.



Cat.	Qty 1+	Qty 3+	Qty 6+
TH-1936	$39.95	$35.90	$31.90

MONTHLY SPECIALS
Look out for our monthly promotions in store now!

TELEPHONE CONNECTORS

Line 610 Socket

For other telephone leads, adaptors.

- Blister pack.
- ACA Approved

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
PS-1412	$6.95	$6.25	$5.50

Plug Adaptor 605 Type

Australian plug to RJ12 6P/4C or RJ45 8P/4C US socket. Includes reducing sleeve.

accepts RJ12 6P/4C or accepts RJ45 8P/4C

ACMA Approved

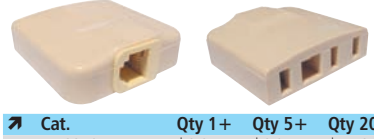
Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6054	$5.95	$5.25	$4.75

Socket Adaptor 610 Type

Australian socket to RJ12 6P/4C or RJ45 8P/4C US socket. Includes reducing sleeve.

accepts RJ12 6P/4C or accepts RJ45 8P/4C

ACMA Approved



Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6052	$6.95	$6.25	$5.50

Double Adaptor

Australian plug to two RJ12 6P/4C US sockets.

- Slimline package

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6023	$6.95	$6.25	$5.50

US Plug to Australian Plug

Includes Australian plug with RJ12 6P/4C socket in back and 2 metre lead with a RJ12 6P4C on each end.

ACMA Approved

RJ12 6P/4C + RJ12 6P/4C

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6045	$6.95	$6.25	$5.50

US Modular Inline Coupler Socket To Socket 6P/4C

Connects two US plugs together.

ACMA Approved

RJ12 6P/4C

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6060	$5.95	$5.25	$4.75

Modular Inline Joiner RJ45 8P/8C

RJ45 8P/8C socket to socket.
Wired straight through.
Pin #1 to pin #1.
Note: Not suitable for Ethernet connections.

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6080	$4.95	$4.45	$3.90

Modular Inline Joiner RJ45 8P/8C Crossover

RJ45 8P/8C socket to socket.
Wired in crossover format.
Pin #1 to pin #8.
Note: Not suitable for Ethernet connections.

ACMA Approved

RJ45 8P/8C

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6081	$5.95	$5.25	$4.75

US Modular Skirting Mount Wall Socket RJ12 6P/4C

Standard US type wall socket. Suitable for all telephones.

RJ12 6P/4C

ACMA Approved

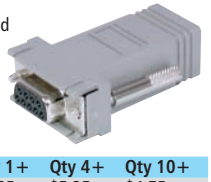
Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6058	$6.50	$5.75	$4.95

DB9 Socket to RJ45

Socket adaptor. Can be wired without soldering.

- Unwired

ACMA Approved



Cat.	Qty 1+	Qty 4+	Qty 10+
PA-0906	$5.95	$5.25	$4.75

DB25 Plug to RJ45 8P/8C Socket Adaptor

Unwired. Can be wired without soldering.

RJ45 8P/8C

ACMA Approved

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-0904	$7.95	$6.95	$6.25

DB25 Socket to RJ45 8P/8C Socket Adaptor

Unwired. Can be wired without soldering.
Now ACMA Approved.

RJ45 8P/8C

ACMA Approved

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-0905	$7.95	$6.95	$6.25

Wall Socket 6P/4C

Square wall socket to suit RJ12 6P/4C plugs. Screw terminals for connection.

- 44 x 44 x 24(D)mm.

RJ12 6P/4C

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6059	$5.95	$5.25	$4.75

RJ45 Side Entry Surface Mount 8P/8C

Side entry surface mount voice grade US modular socket. Snap-on cover provides access to screw terminals for connection of wires. Double sided tape included for easy installation.

- Beige colour suits most environments.
- 50(W) x 57(H) x 20(D)mm.

RJ45 8P/8C

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6064	$6.50	$5.75	$4.95

RJ45 to RJ12 Reducers

These sleeves reduce a RJ45 size socket to a RJ12 size. This allows RJ45 sockets to accept either RJ12 or RJ45 plugs.

- Sleeves are ivory in colour.
- Pack of 5.

Cat.	Qty 1+	Qty 5+	Qty 20+
Pkt 5 YT-6055	$4.95	$4.45	$3.90

Wall Phone Bracket RJ12 6P/4C

Wall phone bracket designed to allow easy installation of telephones which have standard US modular wall mountings. The line is connected from bracket to phone by a 30mm modular cord.

- Fits standard Australian electrical switch plate installation hardware.
- Fawn colour.
- Socket 6P/4C.
- 76W x 119H x 9Dmm

RJ12 6P/4C

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
YT-6062	$7.95	$6.95	$6.25

Extension Cables RJ12 6P/4C

RJ12 6P/4C US Modular Plugs US plug to US plug.

- Colour Ivory.

RJ12 6P/4C + RJ12 6P/4C

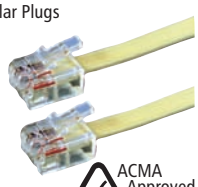
ACMA Approved

	Cat.	Qty 1+	Qty 5+	Qty 20+
300mm	YT-6044	$3.95	$3.45	$3.15
1.0m	YT-6042	$4.95	$4.45	$3.90
3.0m	YT-6040	$5.95	$5.25	$4.75
5.0m	YT-6049	$7.95	$6.95	$6.25
10.0m	YT-6041	$11.95	$10.70	$9.50
15.0m	YT-6043	$14.95	$13.35	$11.70

Extension Cables RJ12 6P/6C

These leads are used in many office telephone Commander type systems, where 6 wires are required.
Leads are plug to plug.

- RJ12 6P/6C US Modular Plugs
- Colour Ivory.



RJ12 6P/6C + RJ12 6P/6C

ACMA Approved

	Cat.	Qty 1+	Qty 5+	Qty 20+
1.0m	YT-6033	$9.95	$8.75	$7.75
3.0m	YT-6036	$11.95	$10.70	$9.50
5.0m	YT-6034	$12.95	$11.35	$10.35
10.0m	YT-6037	$13.95	$12.35	$10.95
15.0m	YT-6038	$16.95	$14.95	$13.35

Replacement Handset Curly Cord

4P/4C US MODULAR PLUGS

RJ11 4P/4C + RJ11 4P/4C

ACMA Approved

Cat.	Qty 1+	Qty 5+	Qty 20+
3.0m White YT-6047	$8.95	$7.95	$6.95

RJ12 to RJ45 Modular Leads

RJ12 6P/4C to RJ45 8P/4C
Colour: Ivory.

RJ12 6P/4C + RJ45 8P/4C

ACMA Approved

	Cat.	Qty 1+	Qty 5+	Qty 20+
2.0m	YT-6086	$8.95	$7.95	$6.95
3.0m	YT-6087	$12.95	$11.35	$10.35

Networking / Telecom Connectors

RJ45 MODULAR

Modular Plugs

50µ" Gold Contact

8/8 - RJ45
- Not ACMA Approved

Pkt	Cat.	Qty 1+	Qty 5+	Qty 20+
10	PP-1436	$7.95	$6.95	$6.25

SCREENED 8 PIN FOR STRANDED CABLE

8P8C with full screening and round cable entry for connection to STP cable.

ACMA Approved

Pkt	Cat.	Qty 1+	Qty 5+	Qty 20+
10	PP-1437	$14.95	$13.35	$11.70

RJ45 MODULAR PLUGS FOR STRANDED/SOLID CAT 6 CABLE PK10

RJ45 Modular Plugs for Stranded and Solid Cat 6 Cable. Pack of 10

ACMA Approved

RJ45 STRANDED		Qty 1+	Qty 5+	Qty 20+
Pkt 10	PP-1447	$13.95	$12.35	$10.95

8 PIN FOR FLAT STRANDED CABLE

8/8 - RJ45

ACMA Approved

8 PIN FOR ROUND SOLID CORE CABLE

8/8 RJ45
Suits Cat5e

ACMA Approved

RJ45 STRANDED		Qty 1+	Qty 5+	Qty 20+
Pkt 5	PP-1434	$5.95	$5.25	$4.75
RJ45 STRANDED				
Pkt 50	PP-1435	$29.95	$26.90	$23.70
RJ45 SOLID				
Pkt 6	PP-1438	$6.95	$6.25	$5.50
RJ45 SOLID				
Pkt 50	PP-1439	$34.95	$31.45	$27.90

RJ45 BOOTS

A packet of boots to suit RJ45 8/8 plugs.

Pkt	Cat.	Qty 1+	Qty 5+	Qty 20+
4	PM-1441	$4.95	$4.45	$4.15
50 Blue	PM-1442	$15.50	$13.70	$12.95

RJ45 CONNECTORS IP67 RATED

This set of connectors makes it safe to use RJ45 connectors in harsh environments. Rated to IP67 they are dust tight and water tight making them handy for control and communications applications outdoors or industy workshops.

Type	Cat.	Qty 1+	Qty 10+	Qty 50+
Socket	PS-1450	$27.95	$24.95	$22.35
Plug	PP-1452	$14.95	$13.35	$11.70
	Cat.			
Cap	PP-1454	$8.95	$7.95	$6.95

RJ11/12 MODULAR

50µ" Gold Contact

4 PIN FOR STRANDED CABLE

4/4 - RJ11

ACMA Approved

6 PIN FOR STRANDED CABLE

6/6 - RJ12

ACMA Approved

RJ11		Qty 1+	Qty 5+	Qty 20+
Pkt 5	PP-1430	$2.45	$2.15	$1.95
RJ11				
Pkt 50	PP-1431	$19.95	$17.70	$15.70
RJ12				
Pkt 5	PP-1432	$2.95	$2.60	$2.30
RJ12				
Pkt 50	PP-1433	$23.95	$21.35	$18.95

Australian / NZ Flush Wallplates

Our premium Australian / NZ flush plates not only accept our Cat 5e jacks shown below, they are also compatible with many other standard Australian mechanisms and jacks. The 2 piece design has a separate back plate and cover which is easily removed for painting.

- Fits standard Australian/NZ electrical switch plate installation hardware and screw centres.
- Perfect for easy flush installation on Gyprock walls.
- Supplied unloaded without jacks (see cat. YN-8036 below).
- Dimensions 116(W) x 75(H) x 13(D)mm.

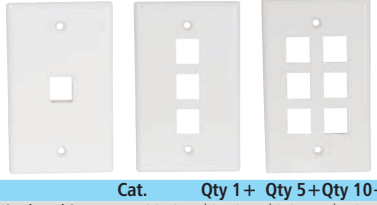
Cat. YN-8015 Cat. YN-8016 Cat. YN-8017

	Cat.	Qty 1+	Qty 4+	Qty 10+
Single	YN-8015	$5.95	$5.25	$4.75
Double	YN-8016	$5.95	$5.25	$4.75
Triple	YN-8017	$5.95	$5.25	$4.75

Keystone Wallplates

Flush type wall plates to accept our standard keystone 110 jacks. Fits standard Australian electrical switch plate installation hardware and screw centres, making it perfect for easy flush installation on plasterboard or other cavity walls.

- Supplied unloaded without keystone jacks
- Dimensions 70(W) x 114(H) x 6(D)mm



	Cat.	Qty 1+	Qty 5+	Qty 10+
Single White	YN-8050	$2.50	$2.21	$1.95
Double White	YN-8052	$2.50	$2.21	$1.95
Triple White	YN-8054	$2.75	$2.45	$2.15
Quad White	YN-8056	$2.90	$2.60	$2.30
6 Way White	YN-8058	$2.90	$2.60	$2.30

RJ11 Socket 6P4C Keystone Jack

RJ11 Socket 6P4C Keystone Jack

	Cat.	Qty 1+	Qty 5+	Qty 10+
	YN-8026	$4.95	$4.45	$3.90

Keystone Socket Jacks

RJ45 Socket CAT5e Keystone Jack - White
YN-8028

RJ45 Socket Cat6 Keystone Jack
YN-8029

	Cat.	Qty 1+	Qty 5+	Qty 10+
Cat5e	YN-8028	$4.95	$4.45	$3.90
Cat6	YN-8029	$4.95	$4.45	$3.90

RJ45 Cat6 Keystone Socket - White

RJ45 Cat 6 Keystone Socket - white.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8033	$14.95	$13.35	$11.70

RJ12 IDC Socket for Flush Plates

Voice grade RJ12 6P4C IDC jack with 2 IDC connections per contact allowing easy loop-in, loop-out for typical voice applications. Compatible with most standard Australian flush plates. Rear termination with IDC impact tool.

	Cat.	Qty 1+	Qty 5+	Qty 20+
	YN-8035	$12.95	$11.35	$10.35

Cat5e IDC Jack to Suit Australian / NZ Style Flush Plates

Our premium Cat 5e IDC data jack is designed to suit our wallplates shown above. They also suit many other brands of Australian/NZ flush plates.

- Rear terminated with 110 or Krone impact tool.
- T568A & T568B colour coding for easy installation.
- ACMA Approved.
- Suit YN-8015/16/17 shown above.

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8036	$12.95	$11.35	$10.35

Keystone Surface Box

Side entry surface mount boxes to accept our standard keystone 110 jacks.

- Snap-on cover for easy installation & access to wiring.
- Single and duplex versions available.
- Double sided tape for easy installation.
- Supplied unloaded without keystone jacks.
- Colour is white.

ACMA Approved

WxHxD(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Single 30x60x26	YN-8022	$5.95	$5.25	$4.75
Double 55x60x26	YN-8024	$5.95	$5.25	$4.75

110 Keystone Jack

Suitable for use with our keystone wall plates and keystone surface boxes.

- For termination with ISBY impact tool and has combined 568A and T568B colour coding for easy installation.
- White in colour.

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8030	$12.95	$11.35	$10.35

Cat5e Coupler 8P/8C

This coupler makes short work of small Cat 5 cabling jobs and enables pre-made cables to be used through-out. Simply clip into a wall plate and plug cables in on both sides.

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8032	$22.95	$20.35	$18.35

Cat5e Socket Coupler Straight

Use this jack connector to join two fabricated Cat 5e cables.
- Straight through

ACMA Approved

	Cat.	Qty 1+	Qty 4+	Qty 10+
	YN-8034	$16.95	$14.95	$13.35

MPEG Portable Sound Players have created an enormous demand for ultra-small Earphones. Our range of these has consquently expanded (see page 439) and, for some reason proper Headphones (see page 436-437).

Indeed, Audio/PA Equipment is still popular, along with Multiband Radios. Curiously DAB Radios are only modestly popular.

If you are looking for a Large Screen TV Bracket go no further than page 446. We have the best range around at definately the best prices.

We have some sensational new TV Antennas. You need to read up on this section starting at page 447, because the government is turning off some large slabs of the old TV station frequency allocations and selling the space off to mobile phone carriers. Jaycar already has the right TV antennas for the new station allocations (we also have the new masthead amps as well with the filters to keep out mobile phone interference).

And as usual we have the largest range of TV Connectors, Leads, Adaptors, and AV etc. in Australia & NZ. There's nothing new about that, however - apart from page 463 there's lots of new stuff there!

We have our usual strong range of Speaker Components & Accessories and we do have some spectacular Laser Light Show products (pages 480-482).

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PORTABLE PA SYSTEMS

10" Portable PA System with iPod® Dock

NEW 2013

A portable PA system with iPod® connectivity. Use the integrated dock to simultaneously charge your device and to easily share music with your audience. A stereo AUX input is provided for all other popular audio players. You can also play MP3 music files from an SD card or USB flash drive. True portability is achieved with a built-in battery providing up to 7 - 8 hours of usage. The case is built to withstand rigorous travel. It features a retractable handle at the top and wheels at the bottom for easy transportation to and from venues. Foldout handles at the side make for easy lifting. Microphone included.

- Dock to suit iPhone®/iPod®/iPad® 1 & 2
- Retractable handle at the top with wheels at the base; foldout handles at the sides
- Stereo AUX input for popular audio players
- Can be used as an instrument amplifier
- Supports a balanced or unbalanced mic
- Built in SLA battery

Specifications	
Output power	22WRMS
Voltage rating	13.6V - 13.7V
Battery capacity	12V 4.5Ah
Usage time	7 - 8 hours
Charge time	10 hours
Frequency Range	20Hz - 20khz
Weight	18.5kg
Dimensions	500(H) x 465(W) x 325(D)mm

Note: iPad® and iPhone® not included

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
CS-2547	$299.00	$269.00	$239.00

10" Portable PA System with 7 Channel Mixer

NEW 2013

This is a feature-packed, compact, lightweight portable PA system, which includes 2 x 100WRMS speakers, 7-channel mixer & microphone. Its weight has been optimised through a clever use of ABS plastic, while the Class D amplifier leaves its performance uncompromised. The mixer features built-in DSP effects, peak indicator and a variety of controls to fine-tune the audio frequency range. It plays MP3s via a SD card or a USB flash drive. The PA system can also be used an instrument amplifier. Transportation is easy; the mixer neatly locks into place behind one speaker while the other serves as storage for your microphone and cables.

- Mains powered Class D amplifier
- 7 channel mixer
- Built-in DSP effects
- Each channel has a peak indicator, treble, bass, effect and volume controls
- Accepts a SD card or USB flash drive for MP3 playback
- Use with a balanced or unbalanced mic or with an instrument

Specifications	
Output power	2 x 100WRMS Speakers
Voltage rating	Mains powered
Frequency range	50Hz - 20kHz
Weight	23kg
Dimensions	320(L) x 320(W) x 475(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
CS-2549	$499.00	$449.00	$399.00

PA Speakers

PUBLIC ADDRESS SPEAKERS

15" Party Speaker

Great for entertainment and party use! These rugged party speakers will provide you with good overall performance delivering 120WRMS. They are sensitive enough to be powered from a modest 30WRMS and is also protected from over powering by a PTC speaker protector. Each covered in a black hard wearing carpet with plastic corner protectors, the 15" woofer is protected by a tough metal grille to protect from dancing feet and deliberate abuse.

- 1 x 15 inch woofer
- 1 x Wide dispersion piezo horn
- 3 x Piezo tweeters

Specifications	
Speaker Size	15"
Sensitivity	94dB SPL @1W, 1m
Impedance	8 ohms
Power handling	120WRMS
Frequency resp	45Hz - 19kHz
Enclosure size	740 x 505 x 350mm
Weight	25.5kg

NOTE! Cheaper than Hiring!

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Each	CS-2515	$149.00	$133.95	$118.95

12" Party Speaker

This speaker can handle a massive 200WRMS and is an excellent addition to any entertainment system. The PA speaker provides good performance in difficult locations such as backyards, tents, party rooms or halls etc. The boxes are molded from high impact resin and a tough metal grille protects the main driver. An efficient piezo driver handles the upper mid & treble frequencies and the bass is produced by a 12" driver with a heavy (1kg) magnet. These speakers could be used for PA applications but are great for party use.

- 1 x 12 inch woofer
- 1 x wide dispersion piezo horn

Specifications	
Impedance	8 ohms
Power handling	200WRMS
Frequency resp.	50Hz - 20kHz
Enclosure size	620(H) x 400(W) x 330(D)mm
Weight	16kg

NOTE! Cheaper than Hiring!

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Each	CS-2514	$199.00	$178.95	$158.95

200W/300W Active PA Speakers with MP3 Player

2-way active PA speakers that are not only powerful but are also extremely portable. They incorporate a long throw woofer and an efficient compression driver to reproduce sound with excellent fidelity. The durable moulded enclosure is complemented with a tough metal grille that protects the drivers. They feature 3 channels with balanced XLR microphone inputs and 1/4" unbalanced inputs, RCA inputs for CD player or other auxiliary audio source connection. If you want to play MP3 tracks, there's an SD card slot and a USB port to take flash drives or any other compatible device and an MP3 controller with track readout and play, pause and track skip controls. Ideal for DJ, PA for schools, sports, churches, weddings, conferences etc.

- Titanium tweeter
- MP3 controller
- Line level RCA inputs
- Balanced and unbalanced line outs
- SD card and USB inputs
- 2 band equaliser
- Tough moulded enclosure

200W 12" VERSION

Specifications	
Power Output	200WRMS
Dimensions	620(H) x 400(W) x 400(D)mm
Weight	17kg

Cat CS-2529

300W 15" VERSION

Specifications	
Power Output	300WRMS
Dimensions	690(H) x 460(W) x 400(D)mm
Weight	23kg

Cat CS-2530

1 YEAR WARRANTY

		Cat.	Qty 1+	Qty 4+	Qty 10+
12" 200WRMS Active Speaker	Each	CS-2529	$399.00	$359.00	$319.00
15" 300WRMS Active Speaker	Each	CS-2530	$469.00	$425.00	$379.00

PUBLIC ADDRESS SPEAKER SPARES

PA Speaker Covers

Protect your PA speaker investment, or keep the prying eyes of thieves away. Made from durable two-layer UV and water-resistant coated nylon, these covers will protect your speakers from the elements while being transported or from bumps and scrapes when in storage.

- CS-2500 Suits PA Speaker and Speaker/Amp CS-2514 or CS-2517
- CS-2501 Suits 12" Foldback Speaker CS-2516
- CS-2502 Suits 12" Subwoofer CS-2518

NEW LOWER PRICE

Note: Speaker not included.

	Cat.	Qty 1+	Qty 4+	Qty 10+
PA Speaker and Speaker/Amp Cover	CS-2500	$19.95	$17.70	$15.70
12" Foldback Speaker Cover	CS-2501	$19.95	$17.70	$15.70
12" Subwoofer Cover	CS-2502	$19.95	$17.70	$15.70

Replacement Tweeter for CS-2516

Replacement piezo horn tweeter for CS-2516 Foldback Speaker, or could be used for any application. No crossover required.

Specifications	
Power handling	50WRMS
Nominal impedance	8 ohms
Frequency response	2.2 - 18kHz
Sensitivity	105dB SPL @ 1W 1m

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CT-2511	$7.95	$6.95	$6.25

Top Hat Adaptor 35 - 15mm

Adapts a 35mm top hat mount to 15mm.

CRAZY CLEARANCE

1 YEAR WARRANTY

- Suits portable PA amps, speaker bins etc.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	CW-2863	$8.95	$7.95	$6.95

PUBLIC ADDRESS SYSTEMS

Belt Pack Portable PA

A stylish portable PA speaker designed to be worn around the waist. This fully self contained amplified speaker will allow you to be heard over a crowd or noisy environments. Unit is supplied with a comfortable wired headset microphone with flexible boom. Integrated with rechargeable batteries; unit is suitable for outdoor activities, lectures/presentation, aerobics, sports, etc.

- 3.5" speaker
- Adjustable belt
- Mains charger included
- Aux audio input 3.5mm for MP3 or iPod® connection
- 1000mAh rechargeable battery

	Cat.	Qty 1+	Qty 4+	Qty 10+
Portable PA Speaker - 3.5"	AM-4060	$69.00	$61.95	$54.95

Portable Wireless PA Amplifier & Microphone

The system consists of a compact yet powerful amplifier with a built in crystal locked radio receiver and a wireless microphone. The system is equipped to accept a wired microphone and an auxilliary music source. The wireless microphone transmitter has an on/off/stand-by switch, microphone jack, and sensitivity control. An audio output socket is also provided. A sensitive microphone is included and is attached to a small ear hook gooseneck that allows hands free operation. The amplifier runs on an internal 12V rechargeable battery or 240VAC mains.

- 20WRMS output
- 6 inch speaker
- 100Hz to 16kHz bandwidth
- Dimensions: 305(H) x 182(W) x 125(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4075	$99.00	$88.95	$78.95

DJTECH Portable Rechargeable Speaker with Amplifier

Small, light and compact, this is perfect for parties, the beach, schools, auditoriums or a street performance. Simply plug in your iPod, CD player, MP3 player or microphone and you're ready to go. It includes rechargeable batteries with a runtime of about 12 hours so you can set it up in a flash and keep it running for the duration of the performance. The unit includes a wireless hand-held microphone and a wireless transmitter for lapel and lavaliere microphone attachment.

- 50W output
- Battery powered with built-in rechargeable battery
- 12 hours runtime
- Bass reflex enclosure
- 3 Channel mixer with tone control on master
- Adjustable talk over for microphone priority
- Made with 12mm wood and carpet
- 6.5" customized coaxial woofer
- 35mm pole mount for installation
- Dimensions: 264(W) x 273(H) x 264(D)mm
- Weight: 8kg
- Padded Nylon Carry Bag Cat CS-2511

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2513	$299.00	$269.00	$239.00

MEGAPHONE

10 Watt Multifunction Megaphone with Message Recorder and Torch

Get your message across loud and clear with this megaphone. Battery operated, simple to operate and outputs up to 10WRMS. It features a volume control, alarm and whistle function to get attention and has a built in message recorder which allows you to replay announcements repeatedly. It even has a 3W high power LED torch for night time search and rescue applications. Ideal for sporting events, crowd control, peaceful rallies, or when evacuating a building.

- Strap included

Specifications	
Power output	10WRMS
Sound level of horn	110-115dB
Requires	8 x AA batteries
Dimensions	270 (L) x 162(W) x 235(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AM-4055	$69.95	$62.95	$55.95

PRACTICE AMPLIFIER

Portable Practice Amp with 32 Built-In Drum Patterns

Guitar practice amps have never been so portable and feature packed! Suitable for use as a "first amp" or "warm-up amp" before gigs. The Mini Jam is compact and light enough to be easily transported between venues or to sit comfortably on your bedside table. As you play dial in a wide variety of sounds using the volume, gain and tone controls. You can crank up the gain by flicking on the distortion switch for even more variety. Acting like a metronome, the 32 built-in rhythm patterns (produced from real drum samples) allows you to hone your guitar playing skills across popular music genres: rock, blues, RnB, jazz, ballad, funk, metal and hip hop. Intuitively adjust the tempo and volume as required. Use it as a guide to maintain the beat or to help you sketch your original music ideas and riffs. Finally plug in your MP3 or CD player and test your progress by jamming with your heroes. Practice anywhere, anytime; be a rock star!

- 2W, mono
- 32 built-in rhythm patterns (live drum recordings)
- Overdrive with tone control
- Distortion switch for high-gain
- AUX-IN jack to connect a CD/MP3 player
- Headphone jack for private practice
- Built-in E-string tuner
- 9V alkaline battery (not included) provides up to 8 hours of playing
- Dimensions: 180(L) x 90(W) x 155(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2553	$99.00	$88.95	$78.95

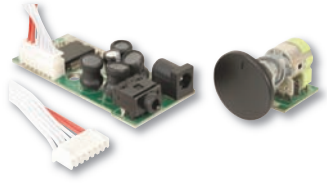
AMPLIFIER MODULES

Class-T Digital Audio Amplifier Module

This PCB amplifier module is ideal for any audio enthusiast that enjoys building and modifying speaker systems. It is designed around the Tripath TA-2024 IC which is a 15W per channel continuous average two-channel IC. The applications are virtually limitless since this tiny PCB measures at a mere 68 x 32mm. Build your own speakers or incorporate the amplifier into an existing speaker cabinet.

- Recommended power supply: Regulated 12VDC 2000mA
- Dimensions: 68(L) x 32(W)mm

Package contents:
- Class T Digital Audio Amplifier PCB
- Volume control PCB with 12" ribbon cable
- LED power indicator
- 12" Speaker wires (Red & Black)
- 12" Power weirs (1 Red & 1 Black)
- 2 x Ferrite cores
- 2 x Output capacitors



All units require further assembly, power supply etc.

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0228	$29.95	$26.90	$23.70

MP3 Player Module with Remote Control

A fantastic little MP3 player module perfect for car or home audio applications. The small PCB with front panel can be installed into the enclosure of your choice allowing you to playback MP3 files from a USB drive or SD Card. It can be powered either from the front panel USB port (5VDC) or a 12VDC source connected straight to the PCB making this fantastic for car audio applications. Considering the price of some car audio systems a do it yourself could save a considerable amount of money with this unit. It uses an easy to read red character LED display and can also playback FM radio.

Specifications	
Frequency Response	100Hz- 20kHz
Includes	IR Remote control
Supports	FAT12/16 File Systems
Supports	320Kbps MP3 files
Panel Buttons	Repeat, EQ, Prev/Vol-, Play/Pause, Next/Vol+, Mode
Blue power	LED indicator
Red character	LED display
Dimensions	75(W) x 49(H) x 46(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0229	$14.95	$13.35	$11.70

RELATED PRODUCT...

Don't forget to see our other Kit Modules in the Kit Section.
See page 80 .

Portable Amplifiers

AMPLIFIERS - SINGLE CHANNEL

5WRMS Single Channel Amplifier

Sometimes you don't need gigawatts and multi channels. A versatile small audio amp for the workshop, test lab or as a small PA or busking amp. RCA and microphone inputs, dual speaker outputs. In addition to the mains input, it also has a 12VDC input so you can run it from a battery.

Please note that this amp has dual inputs and outputs but is mono.

Specifications	
Power output	5WRMS
THD	0.5%
S/N ratio	79dB
	Short circuit and thermal protection
Dimensions	190(L) x 170(W) x 85(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0473	$24.95	$22.35	$19.70

AMPLIFIERS - STEREO

2 x 14WRMS Stereo Amplifier

LOW COST MAINS POWERED

This is a simple, fairly bullet-proof 18W/channel transistor amp and it's surprisingly loud! It is ideal as a small office or workshop PA amp in churches, community halls etc. It is protected from accidental speaker wiring shorts and if abused will simply shut down and reset after it has cooled off. It has a front panel microphone input, bass & treble controls as well as a master volume control.

- A suitable microphone for this unit is AM-4190.

Rear Panel

Specifications	
Power	240VAC 50Hz 150mA
Output	2 x 14WRMS/4Ω
Response	50-18kHz +3dB
Total Harmonic Distortion	0.08% @ 1W
S/N	60dB
Operating Temperature	0-50°C
Microphone Input	60mV @ 1k
Dimensions	170 x 77 x 157mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0472	$34.95	$31.45	$27.90

2 x 15WRMS Portable Stereo Amplifier

This compact amplifier can run off 8 x AA batteries making it ideal for street performers, or by the AC adaptor included for a hi-fi setup at home or in the office. It outputs a clean 15 watts RMS per channel using a digital signal processor, and features spring-loaded push terminals for quick speaker wire termination and rear mounted 3.5mm stereo audio input. Includes a 1.8m 3.5mm male to 2 x RCA cable and 3.5mm plug to 2 x RCA socket adaptor for making connection to a PC, iPod®, MP3 player or portable CD player. Intelligent short-circuit and over-temperature protection ensure amplifier longevity. A great little amplifier for some serious use!

- Batteries not included

Specifications	
Power Output	2 x 15WRMS
Minimum Speaker Impedance	4 ohm
Frequency Response	60Hz - 20kHz
Total Harmonic Distortion	<0.04%
Signal to Noise Ratio	>80dB
Dynamic Range	102 dB
Efficiency	88% (10W, 8 ohm)
Channel Separation	>45dB
Inputs	3.5mm Stereo
Dimensions	150(W) x 130(D) x 30(H)mm

TECH TIP!
Battery Powered

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0487	$49.95	$44.90	$39.90

2 x 25WRMS Compact Stereo Amplifier

A compact amplifier that can deliver up to 25WRMS of power per channel. It is ideal for home, office or a small workshop. Connect audio to the stereo RCA or 3.5mm line input, connect your speakers to the push down spring terminals, connect power and you're in business. There is also a 6.5mm microphone input on the front, making it ideal for a small office or workshop PA system.

- Controls include mic volume, music volume, bass and treble
- 18VAC 2.2A power supply included.

Specifications	
Power output	2 x 25WRMS
Output impedance	4 to 8ohms
Freq response	5Hz to 65kHz, +/- 3dB
S/N Ratio	72dB
Dimensions	216(W) x 65(H) x 150(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0486	$99.95	$89.95	$79.95

2 x 50WRMS Compact Stereo PA Amplifier

Uses digital sound processing to deliver the quality of a Class AB amplifier with the efficiency of a Class D. Features solid aluminium body, high current rated banana socket speaker terminals, stereo RCA audio input, front panel mounted 3.5mm stereo input and a 6.5mm headphone socket means it also doubles as a headphone amplifier. Rounded off with short circuit, thermal and overload protection. Package includes amplifier, 24VDC power supply, two sets of banana plugs, 3.5 to 6.5mm headphone adaptor, 3.5mm to 2 x RCA cable and coiled 3.5mm audio input cable.

Specifications	
Power Output	2 x 50WRMS
Minimum Speaker Impedance	6 ohm
Frequency Response	20Hz - 20kHz
Total Harmonic Distortion	<0.01 % @30W, <5.0% @ 50W
Input Impedance	2k ohm +/- 5%
Signal to Noise Ratio	103dB (A weighted)
Dynamic Range	>100dB
Efficiency	85%
Channel Separation	95dB
Inputs	RCA / 3.5mm stereo
Weight	450g
Dimensions	78(W) x 150(D) x 50(H) mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0488	$149.00	$133.95	$118.95

AMPLIFIERS - 8 CHANNEL

8 x 15WRMS 4 Zone Class D Amplifier

A simple to use 4 zone stereo amplifier capable of driving up to 8 speakers. Weighing in a total of half a kilo, the complete unit is cased in a steel housing with side brackets making it suitable for wall mounting. The compact size does not leave this amplifier short on features, all channels can drive speakers with up to 15WRMS, using digital signal processing and each zone has its own volume attenuator. An RCA stereo line input for connecting common sources such as Hi-Fi systems, DVD/Blu-Ray players, CD/MP3 players and radios. If 8 channels is not enough, add a line loop out expanding and creating an ideal system for schools, retail stores, shopping or even the office. This is the final piece of the puzzle when installing or upgrading to a multi-zone PA or audio system. Requires 12VDC 9A power adaptor (MP-3241).

Specifications	
Power Output	8 x 15WRMS
Minimum Impedance	4 ohm
Frequency Response	20Hz-20kHz
Total Harmonic Distortion	<0.06%
Signal to Noise Ratio	55dB
Dimensions	108(W) x 205(D) x 26(H)mm

RELATED PRODUCT...
See page 438 for headphone amplifiers

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0469	$129.00	$115.95	$102.95

AMPLIFIERS - WIRELESS, SATELLITE

2 x 15WRMS Stereo 2.4GHz Digital Wireless Audio Amplifier System

Send crystal clear audio from your Hi-Fi or portable music device to speakers further away or outside, without messy wiring. Built upon the popular Class T amplifier design this system exhibits high-fidelity, tube-like audio that audiophiles have come to love and enjoy. Connect your speakers to the spring terminals and power using the included power supplies or by 8 x AA batteries in each unit (available separately). Supplied with 2 x 150mm 3.5mm curly cables to connect your audio source.

TECH TIP!
2.4GHz DIGITAL

- 3.5mm local input for Smartphone or MP3 player connectivity
- Transmitter & Receiver requires 8 x AA batteries each

Specifications	
Power output	2 x 15WRMS (4Ω)
Dynamic range	90dB
Sample rate	44.1kHz, 16-bit
Range	up to 20 metres line-of-sight
Frequency response	20Hz - 20kHz
Dimensions	156(L) x 45(H) x 95(W)mm

Rear Panel

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1895	$109.00	$97.95	$86.95

1 YEAR WARRANTY

NEW LOWER PRICE

AMPLIFIERS - STEREO, HI-FI COMPONENT

2 x 100WRMS Stereo Amplifier with Remote Control

This is a good looking, no-nonsense stereo amplifier that will form the heart of an impressive stereo system. The amplifier is rated at a generous 100WRMS per channel and has a flat frequency response from 50Hz to 20kHz. Bass and treble controls are fitted providing +/- 10dB cut or boost. Equipped with microphone input level control, an infrared remote control and screw down speaker terminals to firmly secure the speaker cables.

Specifications	
Power Output	2 x 100WRMS (4Ω)
Frequency response	20Hz to 20kHz
S/N ratio (A - Weighted)	70db
THD	< 0.05%
Output impedance	4, 6 or 8Ω
Inputs for Tape	Tape Tuner, AV1, AV2, CD, Phono
Input impedance	47kΩ
Input sensitivity	Phono - 2.5mV
	Tape, Tuner, AV 250mV
Tape Out level	250mV
Size	420(W) x 135(H) x 214(D)mm

Rear Panel

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0470	$169.00	$151.95	$134.95

1 YEAR WARRANTY

NEW LOWER PRICE

2 x 200WRMS Stereo Amplifier

Based on the popularity of our AA-0470 2 x 100 watt unit, but with higher power output (2x200WRMS) a USB MP3 player function in a standard HI-FI component size.

- Inputs (analogue): DVD/CD, aux 1&2, phono, DAB, tape
- Full remote control

Specifications	
Power Output	2 x 200WRMS (4Ω)
Distortion	<0.003% (Vin=200mV 1W p.out)
Freq Resp	20Hz-20kHz ± 1dB
S/N ratio	70dB
Channel separation	>80dB
Input impedance/sens.	47kohm/250mV
Bass/Treble	±10dB
Dimensions	430(W) x 241(D) x 114(H)mm

Rear Panel

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AA-0484	$329.00	$299.00	$265.00

1 YEAR WARRANTY

200W & 400W Rack Mount Amplifiers

Very versatile rack mount amps that suit a variety of applications. Add a small mixer and use them as a PA amp, or standalone as a foldback amp. They have unbalanced 1/4" jack inputs and balanced XLR inputs. Speaker connections are by Speakon connectors or screw binding posts. Very versatile amps that can be run as dual channel, stereo or bridged. The build quality of these amps is excellent, with very solid aluminium chassis and front panels so they are a very cost-effective solution for a pro audio application.

- Single channel or bridged
- Fan cooled
- Separate level controls for each channel
- Clipping and overload protection indicator LEDs
- 2U rack mount / 3U subwoofer amplifier

RELATED PRODUCT...
For Rack Enclosures see page 84

Dual Channel Bridged 200W Rack Mount Amplifier AA-0477
Dual Channel Bridged 400W Rack Mount Amplifier AA-0479

	Cat.	Qty 1+	Qty 2+	Qty 4+
200 Watt Amplifier Bridged	AA-0477	$199.00	$178.95	$158.95
400 Watt Amplifier Bridged	AA-0479	$299.00	$269.00	$239.00

1 YEAR WARRANTY

Specifications	AA-0477	AA-0479
Power output	2 x 100WRMS @ 4 ohms	2 x 200WRMS @ 4 ohms
	1 x 200WRMS bridged @ 8 ohms	1 x 400WRMS bridged @ 8 ohms
THD	<0.3% @ 1kHz 1W	<0.3% @ 1kHz 1W
S/N ratio	85dB	85dB
Input sensitivity	775mV	775mV
Short circuit protection voltage	3V	3V
Dimensions	480(W) x 360(D) x 90(H)mm	480(W) x 360(D) x 90(H)mm

DJ Equipment

DJ EQUIPMENT

USB MIDI Mixer with Virtual DJ Software

Mix, play and scratch your own MP3 tracks directly from your PC. Now you don't need a pile of discs, a boatload of gear and a small truck, all you need is a half-decent computer and some MP3 tracks. The mixer gives you the control you lose when going from a traditional mixer to a laptop. It sends MIDI data from the controller to your DJ software without the inconvenience of mouse control. It's a fully class-compliant USB MIDI device and complete with Virtual DJ software. This is the ultimate tool for the performing DJ. The program has an easy-to-use interface and a large number of almost professional level options. Just load the folder with the songs to be played and they you can change the BPM, run loops, scratch, use effects, adjust the sound, and more.

Virtual DJ also adds different interfaces to suit everybody from the beginner to the professional DJ, the possibility to record your mixes to burn them on CDs, to broadcast on the Internet and have your own radio station, to save your CDs directly in MP3, to use a headphone to preview the songs or an external mixtable to perform in a club. The vinyl controls will let you scratch like on a real turntable, except that with the beatlock engine your scratches will never end out of the beat. The automatic seamless loop engine and the brand new synchronized sampler will let you perform astounding remixes live, with no preparation at all. The visual representation and the cues allow you to clearly see the song's structure, and never be surprised by a break anymore.

- 2-deck controller
- Mix 2 files in 1 controller
- USB powered, no extra power needed
- Totally portable, smaller and lighter than a laptop
- 2 pro jog wheels
- Pitch, search and scratch
- 3 faders: 1 cross fade, 1 volume per deck
- 6 EQ filters with 6 kills.

System requirements:
- Windows XP SP2 or Vista
- Pentium III or Athlon 1GHz
- 512MB RAM
- Dimensions: 358(W) x 260(H) x 45(D)mm.

TECH TIP!
With built-in Sound Card

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4252	$249.00	$225.00	$198.95

1 YEAR WARRANTY

2Ch Pro DJ Mixer

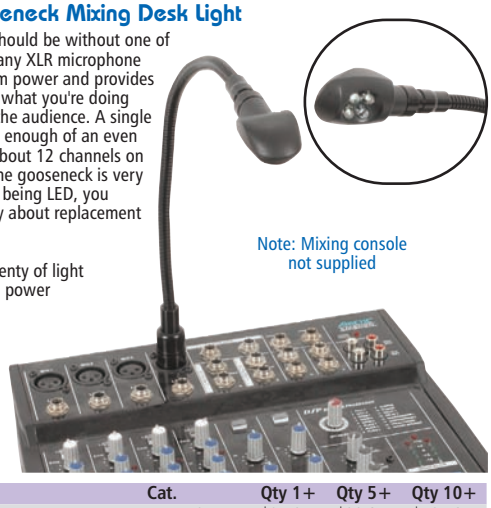
The ideal mixer to learn on. Two channels each with RCA inputs for CD or other line level source and a set of dedicated phono inputs. The BPM counter is capable of accurately measuring the beats per minute of almost any kind of dance music automatically. This function includes a digital indication that allows you to confirm the tempo of the current selection at a glance and takes the guesswork out of comparing the beats of different selections. This provides quick and easy beat matching, and then using the 2 band EQ on each channel you can seamlessly mix in the next track. The BPM counter works equally well when monitoring a CD player and other digital sources or analogue sources such as a turntable.

- Level meters on each channel
- Phono and line level inputs
- Effects loop
- Selectable CF curve
- 2 band EQ on each channel
- Mic and headphone outputs
- Line level preamp outputs
- Dimensions: 330(W) x 22(H) x 102(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4206	$149.00	$133.95	$118.95

LED XLR Gooseneck Mixing Desk Light

No DJ or engineer should be without one of these. It plugs into any XLR microphone socket with phantom power and provides enough light to see what you're doing without disturbing the audience. A single light will easily give enough of an even spread of light for about 12 channels on a mixing console. The gooseneck is very solid and of course, being LED, you won't have to worry about replacement globes.



Note: Mixing console not supplied

- 4 LEDs provide plenty of light
- Runs on phantom power
- 395(L)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AM-4124	$24.95	$22.35	$19.70

WIRELESS MICROPHONE SYSTEMS

Economy VHF Dual Channel Wireless Microphone System

An economical wireless VHF microphone system with enhanced signal reception. Ideal for performers on the go, churches, halls etc. Includes 2 microphones, 1 wireless receiver and plugpack. Microphones require 2 x 9V batteries (not included).

- High-precision quartz crystal locked frequency
- Power and low battery LEDs
- Power and mute switches
- 12 hour battery life
- Up to 80m range
- Power antenna & transmitter peak LEDs
- Volume control / 1/4" output
- Noise squelch circuitry

Additional microphones sold separately
Lavalier Beltpack: Channel A Cat AM-4057 / Channel B Cat. AM-4059

AM-4057

AM-4059

2 mics supplied

Specifications	
Dynamic range	>90dB
Frequency response	60Hz-15kHz
Frequency range	173.29375 - 174MHz
Audio output	0-200mV mixed
Adjacent-chl interference ratio	> 80dB
Receiver power supply	12VDC 350mA
Signal-to-Noise ratio	>85dB
Dimension	195(L) x 145(W) x 42(H)mm

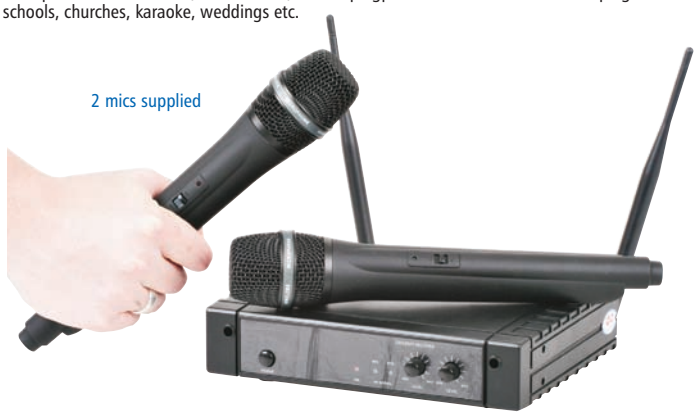
	Cat.	Qty 1+	Qty 4+	Qty 10+
VHF Wireless System	AM-4071	$69.00	$61.95	$54.95
Lavalier Mic - Channel A	AM-4057	$29.95	$26.90	$23.70
Lavalier Mic - Channel B	AM-4059	$29.95	$26.90	$23.70

1 YEAR WARRANTY

WIRELESS MICROPHONE SYSTEMS (CONTINUED)

Economy UHF Dual Channel Wireless Microphone System

This wireless microphone system features two separate channels, one for each microphone. Output is either via separate balanced XLR socket, one for each channel, or via an unbalanced line with the two channels mixed. The system includes 2 microphones and batteries, receiver unit, 14VDC plugpack and one metre 6.5 mono plug to 6.5 mono plug lead. Ideal for schools, churches, karaoke, weddings etc.



Specifications	
Power supply	14VDC
Modulation	FM
Channels	2
Batteries	4 x AA included
Transmitter	
Frequency range	740 - 820MHz
Power	30mW
Maximum modulation	±15kHz
Range	60m
Receiver	
Frequency response	40Hz - 18kHz
Frequency stability	±0.05%
Power	4W
S/N ratio	>98dB
Dimensions	210(L) x 170(W) x 42(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
UHF Wireless System	AM-4078	$149.00	$133.95	$118.95
Spare Wireless Mic - Channel A	AM-4061	$49.95	$44.90	$39.90
Spare Wireless Mic - Channel B	AM-4063	$49.95	$44.90	$39.90

Spare microphones listed on this page are for replacement or substitution of original microphones. Any attempt to operate more than one microphone on each channel will only result in interference on all microphones.

2.4GHz DIGITAL Wireless Dual Channel Microphone System

Adopting 2.4GHz DIGITAL wireless technology, this wireless microphone system is a powerful and reliable system suitable for any performer, function or event. With a range of over 180 metres and the ability to support more than 100 microphones without any interference, it is great for halls, offices, churches, etc.. It supports point to point and point to group transmission and despite its lightweight design, is extremely powerful. Eliminating all background noise, guaranteeing clarity every time, this wireless microphone is the toast of all speeches.

- GFSK digital modulation
- Digital audio with 64k sampling ratio and 16 bit resolution.

Specifications	
Frequency Response	20Hz-20kHz
Dynamic Range	90dB
Receiver sensitivity	85dBm, adjacent channel suppression: 45dB
Latency	Less than 0.5ms
Dimensions	420(L) x 320(W) 70(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
2.4GHz Wireless System	AM-4152	$249.00	$225.00	$198.95

Professional UHF Dual Diversity Wireless Microphone System

Suitable for professional and stage use, this UHF diversity wireless microphone system features 16 user-selectable frequencies per channel with easy infra-red pairing on each microphone to provide interference-free transmission. It also has phase locked loop (PLL) circuitry for frequency stability. Each channel has an LCD which displays the channel selection, frequency and signal strength. The channel is selected with the up/down buttons in the battery compartment. Output is either via separate balanced XLR line for each channel, or via an unbalanced 6.5mm mono line with the two channels signals mixed.

- The system includes 2 microphones with batteries and receiver unit in 19" rack-mount chassis.
- 2 mics included - additional mics sold separately

NEW LOWER PRICE

1 YEAR WARRANTY

Specifications	
Power supply	12VDC, 1.2A
Modulation	FM
Channels	2
Batteries	4 x AA (included)
Transmitter	
Frequency range	770 - 800MHz
Power	30mW
Maximum modulation	±15kHz
Range	>100m
Receiver	
Frequency response	40Hz - 20kHz
Frequency stability	±0.05%
Channel rejection	>80dB
S/N ratio	>90dB
Dimensions	420(L) x 210(W) x 45(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
UHF Diversity Wireless System	AM-4120	$299.00	$269.00	$239.00
Wireless Handheld Mic Ch A	AM-4121	$149.00	$133.95	$118.95
Wireless Handheld Mic Ch B	AM-4128	$149.00	$133.95	$118.95
Wireless Lapel Mic - Ch A	AM-4067	$129.00	$115.95	$102.95
Wireless Lapel Mic - Ch B	AM-4069	$129.00	$115.95	$102.95

Microphones

MICROPHONES

Unidirectional Dynamic Microphone

Dynamic, unidirectional microphone with an anti-pop grille, built-in on/off switch and a plastic finish.

- Fixed 3 metre lead with 6.5mm plug.

Specifications	
Type	Unidirectional dynamic
Frequency response	50Hz - 13kHz
Sensitivity	-50dB
Output Impedance	600 ohm
Termination	3 metre cable - 6.5mm plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4190	$9.95	$8.75	$7.75

Unidirectional Dynamic Microphone - XLR

Dynamic, unidirectional microphone with an anti-pop grille, built-in on/off switch and XLR termination.

- Supplied with a 3 metre XLR to 6.5mm plug cable.

Specifications	
Type	Unidirectional dynamic
Frequency response	50Hz - 13kHz
Sensitivity	-50dB
Output Impedance	600 ohm
Termination	3 metre cable - XLR plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4192	$14.95	$13.35	$11.70

Dynamic Unidirectional Professional Microphone

With professional styling, it features a cardioid polar pattern for reduced background noise and feedback. This microphone is ideal for use in theatres, nightclubs, public address systems and recording. Excellent frequency response and tough metal construction make this microphone great value.

- Supplied with a 6m cable to 6.5mm plug.

Specifications	
Type	Unidirectional, dynamic
Polar pattern	Cardioid
Impedance	600 Ohms
Sensitivity	–72dB ±3dB @ 1kHz
Frequency response	60Hz - 12kHz
Termination	6 metre cable, 6.5mm plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4099	$29.95	$26.90	$23.70

Unidirectional Balanced Professional Vocal Dynamic Microphone

A top quality balanced mic suitable for singing and band work. Similar performance to those costing $200 or more.

- Supplied with 3 pin Cannon lead and 6 metre cable.
- Case made of zinc-diecast, low impedance.
- Compare with the Shure© SM58!

Specifications	
Type	Unidirectional, balanced dynamic
Polar pattern	Cardioid
Impedance	500 Ohms
Sensitivity	–76dB ±3dB @ 1kHz
Frequency response	40Hz - 17kHz
Termination	6 metre cable, XLR

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4096	$39.95	$35.90	$31.90

Electret Condenser Boundary Microphone

A great microphone working on the "Boundary Effect" principle. Place this microphone horizontally or vertically on a large flat surface such as a table or wall and record away.

Specifications	
Type	Electret condensor
Polar pattern	Cardioid
Impedance	680 Ohms
Sensitivity	–62dB ±3dB @ 1kHz
Frequency response	30Hz - 20kHz
Power requirements	LR44 battery
Termination	3 metre cable, 3.5mm plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4072	$29.95	$26.90	$23.70

Shotgun Video Camcorder Microphone

This electret condenser high quality slimline microphone is designed to pick up sound from a long distance away, as well as (with the flick of a switch) close up. The super cardioid polar pattern is designed for video camera use, combining high sensitivity with extremely low noise.

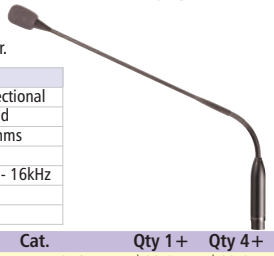
- Supplied with large wind sock and mounting bracket.

Specifications	
Type	Unidirectional, dynamic
Polar pattern	Shotgun
Impedance	1kohm
Sensitivity	–70dB ±3dB @ 1kHz
Frequency response	80Hz - 12kHz
Power requirement	1.5VDC 1mA
Termination	2 metre curly cord, 3.5mm plug
Battery Power	1 x AA required

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4085	$39.95	$35.90	$31.90

Unidirectional Gooseneck Microphone

Capture your audience in any public forum with this professional lectern microphone. Its wide, flat frequency response ensures your speeches sound the way they were intended. The cardioid pickup pattern minimises those annoying noises from nearby speakers and monitors.



- Requires 9 - 52VDC phantom power.

Specifications	
Type	Unidirectional
Polar pattern	Cardioid
Impedance	250 Ohms
Sensitivity	-58dB
Frequency Response	100Hz - 16kHz
Low frequency cutoff switch	
Termination	XLR

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4073	$69.95	$62.95	$55.95

Microphone Intercom Speaker

Designed for box office style communication through protective glass such as ticket booths, bank counters, reception desks, or nightclub entry points. It features an adjustable gooseneck and volume adjustable rotary button at the base.

Specifications	
Frequency Range	150 - 260MHz
RF power output	10mW (max.)
Oscillator	Crystal locked control
Frequency stability	< 0.005%
Maximum Deviation	<15KHz with limiting compressor
Spurious Emission	> 50dB below carrier frequency
T.H.D	< 1% (at 1KHz)
Battery	Requires 2 x AA batteries
Microphone Unit	Uni-directional electret condenser
LED Indicator	Power, ON-OFF and Low battery
Current Consumption	5mA-35mA
Dimensions	98(H)x66(W)x25(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-4089	$79.00	$70.95	$62.95

MICROPHONES (CONTINUED)

Tie Clasp Microphone

Electret condenser tie clasp microphone. Supplied with alligator clip to attach to tie or shirt and 2 metres of cable to 3.5mm plug.

- Ideal for lectures, stage, video recorders etc.

Specifications	
Type	Electret condenser
Polar pattern	Cardioid
Impedance	1kohm
Sensitivity	–67dB ±3dB @ 1kHz
Frequency response	20Hz - 16kHz
Power requirement	1.5VDC 0.7mA max
Termination	2 metre cable, 3.5mm plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4092	$19.95	$17.70	$15.70

Earphones Adaptor with Mic and Control for iPhone®

Now you can listen to music on your iPhone® through your headphones without having to fiddle with the screen. Simply connect this adaptor to both your iPhone® and headphones and listen away. Someone calls during a song? That's ok! with its built in mic, you can answer your call without even having to take your headphones off! Simply click to answer your call or to play/pause the music. Too easy! Features In line microphone and phone call control, music playback and a 3mm headphone jack.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2098	$9.95	$8.75	$7.75

Tie Clasp Condenser Microphone

With excellent sensitivity and low noise, this is the ideal add-on microphone for your digital voice recorder or other portable recording device that only has a tiny built-in microphone. It's very light and unobtrusive, so is ideal for recording interviews, conferences or webcasts.

- Output is to 3.5mm plug
- Cable length 1200mm.

Specifications	
Type	Condensor, tieclasp
Polar pattern	Cardioid
Impedance	2.2kohms
Sensitivity	–66dB ±3dB @ 1kHz
Frequency response	50Hz - 20kHz
Power requirement	1.5VDC 0.6mA
Termination	1.2 metre cable, 6.5mm plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4101	$19.95	$17.70	$15.70

Stereo Tie Clasp Microphone

A handy accessory for stereo digital voice recorders or recording in stereo on your laptop. Independent left and right microphones for true stereo. Suitable for recording conferences, music etc.

Specifications	
Type	Unidirectional stereo
Polar pattern	Cardioid
Impedance	2kohms
Frequency response	20Hz - 16kHz
Sensitivity	-68dB +/-3dB @ 1kHz
Termination	1m lead, 3.5mm stereo plug

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4106	$24.95	$22.35	$19.70

Desktop Multimedia Microphone

Ideal for voice recognition software or simply recording voice and sound. This microphone can sit on your desktop or can be attached to your computer monitor. It produces low noise and has a wide frequency response.

Specifications	
Directionality	Omni directional
Sensitivity	-62dB -/+ 3dB
Impedance	Low
Frequency	20Hz-16kHz
Cable length	3m
Operating voltage	1V-10V
Mic plug	3.5mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4087	$12.95	$11.35	$10.35

MICROPHONE ACCESSORIES

Boom Microphone Stand

Height adjustable with a boom that extends 600mm, so is suitable for vocals, overheads or micing up drum kits or pianos. Mic holder with 5/8" adaptor included.

- Steel construction
- Folds up to 850mm long

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4113	$34.95	$31.45	$27.90

Desk Top Mic Stand

Designed for applications where you don't need a full-size mic stand, such as receptions, conferences, webcasts etc. The build quality is excellent with diecast aluminium legs, steel column and padded feet.

- Adjustable up to a height of 200mm and folds up to 240mm long
- Includes mic holder with 5/8" adaptor

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4111	$17.95	$15.95	$14.35

Expanding Microphone Holder

This expandable microphone holder will accept standard 22mm tapered microphones and will expand to accommodate larger diameter mics.

- Fitted with a 5/8" x 27 thread
- Black in colour

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4107	$6.95	$6.25	$5.50

Gooseneck Mounting Base

With 5/8" thread. Surface mountable for microphone & goosenecks.

- Solid metal construction
- Supplied with mounting screws
- Size 44mm base dia

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4130	$5.95	$5.25	$4.75

Flexible Gooseneck

- Metal
- 450mm long
- 5/8" male to 5/8" female fittings

	Cat.	Qty 1+	Qty 4+	Qty 10+
450mm	AM-4127	$14.95	$13.35	$11.70

3 Channel Microphone Mixer

Combines three microphone audio signals into one for applications like karaoke. Each input has its own volume control. Use with our dynamic mics such as AM-4096/99

- No power required

Specifications	
Inputs	3 x 6.35mm sockets
Output	1 x 6.35mm plug on 3m lead Plastic housing
Weight	205g

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AM-4220	$29.95	$26.90	$23.70

USB MIDI Interface Cable

Connect any MIDI device to your computer: keyboards, controllers, instruments, sound cards, samplers, drum machines etc.

- Plug and play, no software or drivers required
- MIDI in and MIDI out connectors with LED indication
- Cable is 2 metres long

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4934	$29.95	$26.90	$23.70

Headphones

MICROPHONE INSERTS

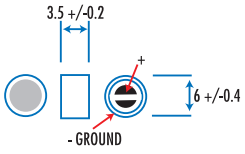
Microphone Inserts

Replacement electret mic inserts for tape recorders, etc.

MINI MICROPHONE INSERT

Omnidirectional mini mic insert. Ideal for all those miniature circuits.

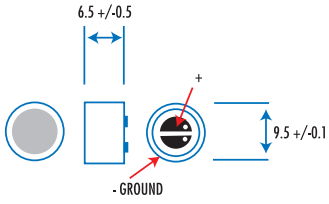
- Size: 6mm diameter
- Operating Voltage 1.5 to 15VDC
- Current Consuption 0.5mA or less (6V supply)
- Frequency Range 40 -10,000Hz
- Output Impedance same as load resistance (150 - 5kΩ)
- Sensitivity 66dB ±3dB
- S/N Ratio More than 40dB
- Size: 6mm x 3.5mm dia



STANDARD MICROPHONE INSERT

Replacement electret mic inserts for tape recorders, etc.

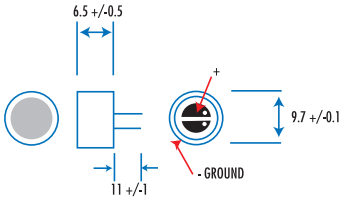
- Operates from a single 1.5V battery
- 10mm diameter. 50Hz - 15kHz
- Sensitivity 69dB. Used by OEM's
- Size: 6.5mm x 9.5mm dia



STANDARD MICROPHONE INSERT WITH PINS

PC mount

- Operates from a single 1.5V battery
- 9.7mm dia x 6.5mm high
- 50Hz - 15kHz
- Sensitivity 69dB
- Includes PC mount pins 11mm long



Description	Size(Dia x Hmm)	Cat.	Qty 1+	Qty 4+	Qty 10+
Mini	6 x 3.5	AM-4008	$2.65	$2.30	$2.07
Standard	6.5 x 9.5	AM-4010	$2.35	$2.09	$1.85
Standard with Pins	9.7 x 6.5	AM-4011	$2.35	$2.09	$1.85

HEADPHONES

Ultra Light Stereo Headphones

Quality headphones at a budget price.

- Terminates to a 3.5mm stereo plug with adaptor to 6.5mm supplied.
- Spare set of muff pads included.

Specifications	
Driver diameter	27mm
Power handling	100mW
Nominal impedance	32 Ohms
Frequency response	100Hz - 20kHz
Sensitivity	188dB

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2016	$7.95	$6.95	$6.25

Lightweight Heavy Bass Stereo Headphones

Designed for extra bass performance.

- Fully adjustable headband & speakers for greater comfort
- Supplied with 3.5mm plug and 6.5mm adaptor

Specifications	
Driver diameter	34mm
Power handling	100mW
Nominal impedance	32 Ohms
Frequency response	20Hz - 20kHz
Sensitivity	100dB

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2007	$14.95	$13.35	$11.70

High Quality Lightweight Stereo Headphones

Tipping the scales at a meagre 80 grams, these lightweight stereo headphones provide outstanding performance, clarity and comfort. Featuring high output drivers with neodymium magnets, they produce crystal clear sound with crisp highs and smooth bass response.

- Soft leatherette swivel ear pads, adjustable headset and 1.2m lead.

Specifications	
Driver diameter	30mm
Power handling	50mW
Nominal impedance	32 Ohms
Frequency response	15Hz - 20kHz
Sensitivity	107dB

NOTE! A TOP SELLER

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2061	$24.95	$22.35	$19.70

High Quality Full Cup Stereo Headphones

Sheer noise-free audio pleasure has never been this affordable and even the most discerning audiophile will be impressed by the crystal clear sound clarity and dynamic range delivered by these premium headphones. Featuring swivel-mounted padded full cups, adjustable headset and 2m cord, they're designed for portability, comfort and performance. A great travelling companion for those with an active lifestyle - throw it in the gym bag or simply wear it on-the-go.

Specifications	
Driver diameter	30mm
Power handling	80mW
Nominal impedance	32 Ohms
Frequency response	20Hz - 20kHz
Sensitivity	104dB

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2063	$34.95	$31.45	$27.90

Pro Monitor Stereo Headphones

Affordable professional headphones that offers outstanding performance for home and studio applications. Provides accurate, linear sound reproduction to cater for the most demanding monitoring applications. Integrated 42mm drivers give excellent bass response with the added comfort of ear cushions to provide hours of fatigue-free listening. Cable length 3m and it has 1x 6.5mm and 2 x 3.5mm connectors.

Specifications	
Driver diameter	42mm
Power handling	120mW
Nominal impedance	64 ohms
Frequency response	10Hz - 26kHz
Sensitivity	100dB per milliwatt

MORE INFORMATION... Back by popular demand

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2065	$99.00	$88.95	$78.95

NOISE CANCELLING HEADPHONES

Active Noise Cancelling Headphones with Built-in USB Rechargeable Batteries

NEW 2013

Suitable for frequent flyers and travellers, these active noise cancellation headphones will reduce your background noise by up to 16dB, allowing you to relax and enjoy high quality digital stereo sound from your in-flight entertainment or personal media player. They reduce cabin noise or your exposure to low-frequency sounds helping you to manage your fatigue while travelling. The ear cups rotate for compact size and easy storage inside your hand-carry bag or seat pocket. Supplied with built-in rechargeable batteries, which is charged through the USB cable provided.

- High quality digital stereo sound
- Active noise cancellation receiver
- Reduces noise by 16dB
- Built-in rechargeable battery
- Airplane adaptor / 3.5mm to 6.5mm adaptor
- USB charge cable / 3.5mm stereo audio cable

Specifications	
Frequency response	15Hz - 25kHz
Distortion	0.1%
Sensitivity	96dB
Impedance	32ohm
Driver size	40mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2088	$69.95	$62.95	$55.95

WIRELESS EARPHONES

TV Hearing Aid

A lightweight TV hearing aid with comfortable ear inserts. It uses noise cancelling technology to reduce background noise and features voice clarification technology so you don't miss any of dialogue in your favourite TV show, news broadcast or movie. A tone control button allows adjustment for different frequency hearing abilities and can be connected either directly to the TV or a digital set-top box. When not in use the cradle charges the batteries.

- Tone control
- Balance control
- Auto power off function for transmitter
- Several users can listen from one transmitter
- Battery life: 12 hours
- Headphone dimensions: 195(H) x 138(W)mm
- Receiver dimensions: 120(W) x 97(L) x 18(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2079	$129.00	$115.95	$102.95

WIRELESS HEADPHONES

Wireless Infra-Red Stereo Headphones

A great pair of entry-level wireless headphones. Setup is quick and easy and the sound clarity is excellent. The ultra-light design allows them to sit so comfortably on your head you'll hardly believe there is anything there. With a range of about 15m and the ability to use one transmitter for multiple headphones, this unit is perfect for a variety of audio experiences. Wirelessly connects with any TV, VCR, VCD, DVD, Computer, MP3 player or audio system.

- Built-in 30mm Mylar speaker and auto mute
- Active noise reduction system for crystal clear sound
- Volume control on headphones
- Several headphones can be used simultaneously with one transmitter
- Headphones require 2 x AAA batteries

Specifications	
Driver diameter	40mm
Power handling	120mW
Nominal impedance	32ohms
Frequency response	500Hz - 20kHz
Sensitivity	100dB
Transmission mode	UHF
Carrier frequency	900MHz
Transmision range	15m
Batteries	2 x AAA
Operation distance	Up to 15m with latest infrared wireless technology

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2049	$49.95	$44.90	$39.90

Bluetooth® Cordless Headphones

These stylish Bluetooth® cordless headphones allow you to enjoy stereo music wirelessly from Bluetooth® A2DP devices. Embedded microphone for hands-free conversation from Bluetooth® enabled mobile phones. Supports remote control of play/pause, previous/next track and volume up or down. The unit will automatically pause the music when receiving an incoming call and resume playing automatically when call has ended. It will automatically connect to the last connected Bluetooth® device. Charges via a USB port and has an adjustable head band and earplugs. Includes USB cable.

Specifications	
Working range	Up to 10m (Class 2)
Bluetooth® version	V2.1+EDR
Bluetooth® profiles supported	HSP, HFP, A2DP and AVRCP
Power	Rechargeable 230mAH Li-Polymer battery
Talk time	Up to 11hrs
Music playing time	Up to 10hrs
Standby time	Up to 250hrs
Charging time	Approx 2.5hrs
Charging input voltage	5VDC
Weight	103g
Dimensions	162(W) x 153(H) x 32(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2081	$49.95	$44.90	$39.90

Digital Wireless Stereo Headphones with TOSLINK

Stylish wireless headphones with a digital TOSLINK audio input to connect your digital devices such as home theatre system, gaming consoles, CD and DVD players. Audio clarity and sound reproduction is superb. It has a built-in rechargeable battery to allow you freedom to move around. The headphone docks to the transmitter snugly and charges when not in use. Supplied with a mains power adaptor, 3.5mm stereo audio and RCA leads.

- TOSLINK and 3.5mm stereo inputs
- Built-in FM radio
- Low battery alarm

900MHZ - AA-2083
2.4GHZ - AA-2086

Specifications	
Frequency response	22 - 20kHz
Signal-to-noise ratio	50dB
R/L channel separation	30dB
Carrier frequency	900MHz (AA-2083) 2.4-2.48GHz (AA-2086) (WLAN hopping)
Modulation	Digital
Maximum transmission power	9.9dBm
Radio tuning band	FM 87.5MHz to 108MHz
Transmission range	15m (AA-2083) 50m (AA-2086)
Transmitter power	5VDC or 3 x 1.5V AAA batteries
Headphone power	internal rechargeable 900mAh Li-Po Battery
Dimensions	
Transmitter only	180(W) x 100(H) x 74(D)mm
Transmitter with headphones	180(W) x 220(H) x 74(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
900MHz	AA-2083	$79.95	$71.95	$63.95
2.4GHz DIGITAL	AA-2086	$99.00	$88.95	$78.95

Hi-Fi Stereo Bluetooth® Headset

The ultimate in multi-functional headphones with Bluetooth® and genuine hands-free profile with the ability to listen to MP3 music from a mobile phone or a PC. Crystal clear sound using digital sound processing and built in CVC (clear voice capture) to eliminate noise while talking. A quality full cup headset with soft touch leatherette finish, and rechargeable Li-Po battery. Allows multiple device connection, perfect for the commuter, student, or multi-tasker.

- Bluetooth®
- Multipoint Support: 2 connections simultaneously
- Supports A2DP, AVRCP, headset, hands free profile
- Faster connecting, clear sound, interference free listening
- Low battery LED and audio indication

Specifications	
Working range	up to 10 metres
Bluetooth version	V2.1
Max Working Time	30 hours
Max Standby Time	100 hours
Power	Rechargeable Li-Polymer battery (recharge via 240V power cable)

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2082	$59.95	$53.95	$47.90

Wireless Stereo Headphones with FM Radio

Wireless headphones with built-in rechargeable Li-ion batteries offers complete wireless musical enjoyment throughout the home or office. Designed to receive high-quality stereo sound from any audio devices such as computer, TV, DVD/CD players, Hi-Fi unit etc. It also features a built-in FM radio that allows you to scan through your favourite radio stations. The transmitter is powered through the mains power adaptor (included) and 3 x AAA batteries (not included). The transmitter base also acts as a charging station for the headphones.

Pack includes: Headphones (receiver), transmitter base, 3.5mm to 3.5mm audio cable, 3.5mm to RCA adapter cable, power supply & user's manual.

Specifications	
Frequency response	22 - 20kHz
Signal to noise ratio	50dB
R/L channel separation	30dB
Transmission range	15m (AA-2071) 50m (AA-2073)
Dimensions	
Base	215(W) x 68(H) x 135(D)mm
Headphones	205(W) x 200(H) x 85(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
900MHz	AA-2071	$79.95	$71.95	$63.95
2.4GHz DIGITAL	AA-2073	$99.00	$88.95	$78.95

Wireless Stereo Headphones for QM-3752/66/76

Having the kids watching DVDs in the back of the car is all very nice, but you don't want to be blasted with endless episodes of Spongebob Squarepants or The Wiggles for hour after hour. Add a pair of wireless headphones and enjoy automotive bliss. Soft cushioned earpads for comfort, switchable between channel A and B.

Specifications	
Driver diameter	27mm
Nominal impedance	32 ohms
Frequency response	120Hz - 20kHz
Sensitivity	100dB

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2047	$39.95	$35.90	$31.90

Headphone Accessories & Headsets

Bluetooth® Audio Dongle with Transmit/Receive

NEW 2013

Enables your audio device to transmit or receive wireless stereo audio. If your mobile phone or MP3 player lacks Bluetooth® functionality, just plug your device into this transmitter/receiver with a standard 3.5mm audio lead and you'll have wireless audio capability. Alternatively, if your speaker or headphone lacks Bluetooth® functionality but your phone or MP3 player does this will also allow you to turn the speaker into a wireless Bluetooth® speaker.

Specifications	
Charging time	2.5 hours
Wireless range	10m
Operating time	
Transmitter	10hrs
Receiver	9hrs
Dimensions	45(L) x 33(W) x 7(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AA-2085	$49.95	$44.90	$39.90

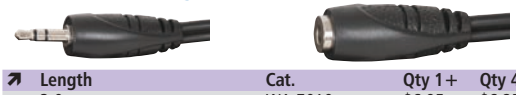
HEADPHONE ACCESSORIES

Aeroplane Headphone Adaptor

Use your own headphones in an aeroplane. 3.5mm stereo socket to 2 x 3.5mm mono plug. Suits planes with 2 x 3.5mm sockets.

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-3581	$5.95	$5.25	$4.75

3.5mm Stereo Plug to 3.5mm Stereo Socket



	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	3.0m	WA-7010	$6.95	$6.25	$5.50
	Curly 3.0m	WA-7012	$8.50	$7.50	$6.75
	Length	**Cat.**	**Qty 1+**	**Qty 4+**	**Qty 10+**
	5.0m	WA-7011	$9.95	$8.75	$7.75

Curly Extension Lead 6.5mm Stereo Plug to Socket - 6m

	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
	6.0m	WA-7046	$9.50	$8.50	$7.50

HEADPHONE AMPLIFIERS

Portable Headphone Amplifier

This incredibly tiny and simple headphone amp adds higher sound quality to your portable setup. Powered by one AAA battery and sporting only a 3.5mm input and output jack that connects to headphones of an MP3 player. A red LED lights up when phones are plugged in, indicating that the amp is active. Designed for high impedance and low sensitivity headphones, boost the volume and experience higher quality bass on the go.

Specifications	
Output Power	12mW - 70mW
Suitable H'phone Impedance	16ohm - 300ohm
Included	3.5mm plug to plug cable
Requires	1 x AAA battery, for 20 hours playtime
Dimensions	55(L) x 23(W) x 14.5(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0407	$19.95	$17.70	$15.70

3 Channel Headphone Amplifier

Designed to allow up to three people to listen to the same music source on three separate sets of headphones. The unit has a master volume control and is fitted with a 2.5m long input cable that is terminated with RCA connectors. Output is via 3 x 6.3mm headphone sockets and 1 x 3.5mm headphone socket mounted on top of the case. Units can be daisy chained for more outputs.

Specifications	
Unit size	128(W) x 46(H) x 63(D)mm
200mW	per channel
32 Ohm	output impedance
S/N	>65dB
Requires	6VDC power source
3.5 stereo to 2 x RCA adaptor included	

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0400	$29.95	$26.90	$23.70

4 Channel Headphone Amplifier

Allows up to four people to listen to the same music source on four separate headphones, without any audio loss you would experience using a passive splitter. Suitable for a range of applications including retail, education, office or for the home where kids can each have their own headset. Each output has its own volume control and the protective side rubber guards can be removed.

- Supplied with an AC power adaptor and a stereo 6.5mm to RCA adaptor.

Specifications	
Output Power	80mW + 80mW (32ohm)
S/N Ratio	78dB
THD	<0.2%
Headphone Impedance	32-64 ohm
Working Power	12VDC, 200mA
Input	6.5mm stereo socket
Output	4 x 6.5mm stereo socket

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0401	$69.95	$62.95	$55.95

MICROPHONE HEADSETS

Computer Microphone Headset

NEW 2013

The headset has adjustable length mic arm to suit all users and a mic boom that rotates up out of the way when not required and can also be bent to suit the user. The headset weight is only 65 grams (excluding cable).

- Cable terminates to 2 plugs. Length - 1.2m.

Headphones	
Frequency range	20Hz-20kHz
Impedance	32 ohms
Max. power	100mW
Sensitivity	98dB (1kHz)

Microphone	
Frequency range	50Hz-16kHz
Impedance	Low
Sensitivity	-62dB

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2028	$14.95	$13.35	$11.70

USB Stereo Headset with Microphone

A true plug and play headset! It simply plugs into your computer's USB port and delivers excellent sound quality across all music styles. The 38mm drivers ensure solid bass while maintaining a balanced response all the way up to 20kHz. The sensitive electret microphone is fitted to a flexible gooseneck and is fully adjustable.

- Perfect for gaming and VoIP communication
- USB 2.0 compliant

Specifications	
Impedance - Headphone	32 Ohm
Driver Diameter - Headphone	38mm
Frequency Response - Headphone	20Hz - 20kHz
Sensitivity - Microphone	-65dB
Sensitivity Pattern - Microphone	Cardioid

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2032	$34.95	$31.45	$27.90

Rechargeable Bluetooth® Headset with Microphone

Lightweight Bluetooth® headset that can be connected with two Bluetooth® devices at the same time. Talk hands-free while driving, or connect to your Bluetooth® enabled PC or PS3 for hands-free chatting on Skype, MSN and other chat programs. Features anti-noise technology for crystal clear conversation, multifunction button for voice command, last number redial, call rejection, and adjustable volume. The built-in Li-Po battery charges from a USB port (USB cable included). Compatible with all Bluetooth® mobile phones and Smartphones.

- Bluetooth® V2.1 with 10m range
- Supports 2 multipoint connections
- Mono
- Smartphone friendly
- 3 hour charge time
- 13 hour usage time
- 220 hour standby time
- Built in rechargeable Li-Po Battery
- Weight: 42g

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-2080	$39.95	$35.90	$31.90

EARPHONES

Magnetic Earpiece

Magnetic 8 Ohm earpiece with 3.5mm plug connected. Suitable for radios, portable TVs, etc.

- Lightweight and easy to use

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3300	$2.25	$1.95	$1.80

Crystal Earpiece

Crystal earpiece of high impedance with 3.5mm plug. Suitable for crystal sets or for experimental use.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3305	$5.95	$5.25	$4.75

Stereo Inner Ear Earphones

Low cost inner ear phones that offer superb performance. Great replacement for your tired or damaged MP3 or iPod® players.

Specifications	
Speaker Diameter	10mm
Frequency range	20Hz - 20kHz
Impedance	32 Ohms +/- 5%
Sensitivity	105dB +/- 5dB
Max power input	10mW

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2090	$5.95	$5.25	$4.75

Metal Stereo Inner Ear Earphones

These inner ear earphones reproduce good quality sound and are extremely durable owing to their metal construction (excluding the cable).

Specifications	
Speaker Diameter	10mm
Frequency range	20Hz - 20kHz
Impedance	32 Ohms +/-; 5%
Sensitivity	105dB +/- 5dB
Max power input	10mW

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2092	$9.95	$8.75	$7.75

Stereo Inner Earphones with Built-in Mic

Quality stereo inner ear earphones with a built-in microphone. Enjoy hassle free music enjoyment without the inconvenience of having to remove your earphones when answering a call. Suitable for use with iPhone®s and other mobile devices where headphone mic is supported.

Specifications	
Speaker Diameter	10mm
Frequency range	20Hz - 20kHz
Impedance	32 Ohms +/- 5%
Sensitivity	105dB +/- 5dB
Max power input	10mW
Mic	-58dB±3dB

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2096	$9.95	$8.75	$7.75

Kids Earphones with Volume Limiter

These earphones have been especially designed to help prevent damage to hearing that may be caused by listening through earphones at unsafe levels. Ideal for young children or teenagers.

- Built in volume limiter
- Maximum output level: 85dB
- Cable length: 1.2m
- Jack: 3.5mm

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-2084	$9.95	$8.75	$7.75

Secure Clip On Earphones

These little beauties will stay put even when you are running or working out at the gym.

- 20 - 20kHz frequency response
- 96dB sensitivity
- 32 Ohms impedance
- 3.5mm stereo plug

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2023	$14.95	$13.35	$11.70

High Quality Stereo Inner Ear Earphones

Using dynamic drivers these inner ear earphones provide better bass response and thus a more harmonious listening experience.

Specifications	
Speaker Diameter	10mm
Impedance	16 Ohms
Sound Pressure Level	100dB
Frequency Response	20Hz - 20kHz
Weight	15g (including cable)

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2094	$24.95	$22.35	$19.70

High Performance Stereo Inner Earphones

NEW 2013

Tested Best. These stylish earphones has comparable performance to brand name models available in the market retailing up to hundreds of dollars. Ergonomically designed, it sits comfortably in your ears producing crystal clear highs and powerful bass notes. Comes with strong flat cables that will not easily break and is terminated with a gold plated 3.5mm stereo plug.

Specifications	
Sensitivity	105dB
Frequency range	20Hz-20kHz

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2095	$34.95	$31.45	$27.90

WIRELESS BLUETOOTH® EARPHONES

USB Bluetooth® Handsfree Stereo Earphones

Listen to your iPod® or MP3 player without missing a call from your mobile phone. This tiny device will allow you to answer, hang up and swap between your music source and mobile handset as well as adjusting the volume. It connects to the headphone jack of your iPod® or music source and will cut out the music to allow the call to be taken. It's light weight, has a tie clasp clip, charges via an USB port and features backlight buttons for use at night.

- Supplied with a 1.5m USB lead, 730mm sound source interface lead and bud-style earphones
- Dimensions: 50(H) x 25(W) x 11(D)mm
- Battery: Non replaceable Lithium-ion rechargeable

Cat.	Qty 1+
XC-4894	$39.95

Bluetooth® Stereo Headset

Easily paired with any Bluetooth® device such as a mobile phone or computers. Extremely light and comfortable, it has a flexible and soft design which allows you to enjoy your music without fatigue. Microphone for Bluetooth® hands-free capability and lithium-ion rechargeable batteries which will provide hours of use.

- USB charging cable included.

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2067	$49.95	$44.90	$39.90

Rechargeable In-Ear Stereo Bluetooth® Headset

NEW 2013

Durable, lightweight Bluetooth® headset suitable for casual or sports use. Ingeniously designed, the cable wraps around behind your neck staying clear of your arms and torso as you do your favourite exercises, helping to prevent accidental damage or physical injury. The in-ear design offers a snug fit and helps to isolate noise. aptX® coding technology delivers high quality audio indistinguishable from wired connections, while a built-in mic allows you take phone calls on the move. AAC support ensures compatibility with iOS® devices. Perfect for use in the gym or on your run outdoors.

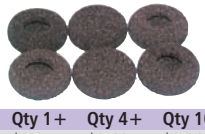
- Frequency response: 10Hz - 20kHz
- Supports Bluetooth® 4.0
- Range: 10m
- Supported profiles: HSP, HFP, A2DP & AVRCP
- Small, medium and large in-ear tips supplied
- Charging via a USB port using a special clip
- Operates up to 4hrs
- Standby time of up to 150hrs
- Dimensions: 54(L)mm (wraparound lead)

Cat.	Qty 1+	Qty 4+	Qty 10+
AA-2069	$74.95	$67.50	$59.95

EARPHONES ACCESSORIES & SPARES

Earphone Replacement Pads

Earphone Foam Replacement Pads, 6 black sponge pads, for replacing soiled ones on earphones.



	Cat.	Qty 1+	Qty 4+	Qty 10+
Small - 17mm	AA-2013	$2.95	$2.60	$2.30

Multiband Radios

PILLOW SPEAKERS

Pillow Speakers

A safe and convenient alternative to headphones or earphones whilst listening to music in bed. Simply plug in an MP3 player, iPod® or radio and place into a pillow case. Perfect for children and adults alike. 1m lead with 3.5mm stereo plug included. No batteries required.

- 1m removable cable with 3.5mm plug

Specifications	
Impedance	16 ohm @ 1kHz
Rated power	0.1W
Maximum power	0.6W
Resonance frequency	500Hz ± 20%

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AS-3029	$9.95	$8.75	$7.75

RADIO

USB Rechargeable Portable Mini FM Radio with MP3 Player

Compact, portable FM radio with built-in MP3 player. Listen to your favourite FM stations or your favourite MP3 tracks through the microSD card slot. No need to buy batteries, it has a built-in rechargeable Li-ion battery inside and charges via USB.

- Supports MicroSD card
- Built-in high quality rechargeable Li-ion battery
- USB cable included

NEW LOWER PRICE

Specifications	
FM	87.5 - 108MHz
Output	2WRMS, THD = 10%
Dimensions	91(L) x 54(H) x 20(W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1738	$14.95	$13.35	$11.70

WORLD BAND RADIOS

9 Band FM/MW/SW Pocket Radio

NEW 2013

A powerful little radio capable of receiving FM/MW/SW1-7 bands. Features full clock functions, an alarm, antenna, and a 3.5mm headphone jack for personal listening. Also features a handy fold-out stand so it can sit on a table at a comfortable viewing angle.

Specifications	
FM	88 - 108MHz
MW	530 - 1600kHz
SW	580 - 1790kHz
Connections	3.5mm headphone jack
Power	2 x AA batteries or 3VDC plugpack (available separately)
Dimensions	110(L) x 70(H) x 24(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1736	$24.95	$22.35	$19.70

AM/FM/SW Rechargeable Radio with MP3

NEW 2013

A tri-band compact, portable AM/FM/SW radio with built-in MP3 player and digital clock. Listen to your favourite local AM/FM stations or international programs on the SW band. You can also connect a USB drive or MicroSD card and listen to MP3 tracks. Features a blue backlit LCD for easy use in the dark. No need to buy batteries, it has a built-in rechargeable Li-ion battery inside and charges via the supplied USB cable. Also features a 3.5mm headphone jack for private listening.

- Supports USB flash drive and MicroSD card (32GB max)
- 3.5mm headphone jack
- Built-in high quality rechargeable Li-ion battery (BL-5C 3.7V 850mAh)
- USB charge cable supplied
- Dimensions: 114(L) x 70(H) x 25(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1721	$29.95	$26.90	$23.70

World Band AM/FM/SW/LW/AIR PLL Radio

NEW 2013

A PLL world band radio loaded with a great list of features but easy to operate. Select from 5 available bands, FM, AM(MW, with 9 or 10k step), SW, LW and AIR bands. Tune to a desired frequency using the fast or slow scroll function and store up to 500 of your favourite radio stations.

- 500 programmable memory bank
- Sleep function up to 120 minutes
- Manual, auto, or preset station search
- Battery indicator
- Includes carry case
- Lock button

Specifications	
AM(MW coverage)	522 - 1620 kHz(9k) 520 - 1710 kHz(10k)
FM coverage	87.5 - 108.0MHz
SW coverage	2300 - 26100 kHz
LW coverage	153 - 279kHz
AIR coverage	118 - 137MHz
Power	Requires 2 x AA batteries
Dimensions	120(W) x 75(H) x 30(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1733	$59.95	$53.95	$47.90

World Band AM/FM/SW PLL Radio

Truly an ideal radio for the casual user and the enthusiast. It offers FM, MW(AM) stations and three Short Wave (SW) stations which range from 1,711kHz to 29,999kHz for receiving international broadcasts. The analogue tuning is assisted with a digital display and a tuning step, select fast for scrolling through the frequency or slow for that fine adjustment. Uses a Phase-Locked Loop (PLL) to ensure a stable reception. This unit is built with high performance IC's and MOSFET's that provide high sensitivity, strong anti-interference, low background noise and distortion. Includes a large back lit LCD displaying the frequency, clock, battery level and signal strength indictor. Other features includes AM RF gain, AM bandwidth switch, internal/ external antenna switch, Local/DX antenna switch, IF out, total of 50 presets - 10 presets for each band (AM/FM/SW1/SW2/SW3), alarm function, snooze button, button lock, and the list goes on. Power options are 6 x AA (not included) used with supplied 6 x D size battery adaptors, 6 x D batteries (not included) or the supplied 9V PSU. Supplied with a carry strap.

- Large back lit LCD
- RF gain control
- Bass & treble controls
- Key lock
- IF output
- Line in and out
- Earphone socket
- Speaker 5W/4 ohms
- Local/DX antenna switch
- External antenna connection
- Internal full range speaker
- Mains or battery operated

Specifications	
FM	87.5-108.0MHz
MW(AM)	522-1620kHz (9kHz); 520-1710kHz (10kHz)
SW	1,711-10010kHz; 9,990-20,010kHz; 19,990-29,999kHz
Dimensions	310(W) x 195(H) x 100(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1748	$129.00	$115.95	$102.95

World Band AM/FM/SW/AIR PLL Synthesised Receiver with SSB

NEW 2013

Ideal for a novice ham radio licensor, keen fisherman or even just the outdoors type, this radio has everything you will ever need in a radio with the added function of single-sideband modulation (SSB). SSB is used to obtain current weather reports, so it is perfect to take to sea to avoid changing weather conditions. However with great FM and AM coverage and battery operation it is also perfect for camping, BBQs and thanks to its world/local time selection clock and alarm, it can even be used as an alarm clock! Additional features include auto tuning saving, 400 memories and keypad direct entry. This is certainly a radio of many uses! Power options are 6 x AA (not included) used with supplied 6 x D size battery adaptors, 6 x D batteries (not included) or the supplied 9V PSU. Supplied with a carry strap.

- Large back lit LCD
- RF gain control
- Bass & treble controls
- Key lock
- IF output
- Line in and out
- Earphone socket
- Speaker 5W/4 ohms
- Local/DX antenna switch
- External antenna connection
- Internal full range speaker
- Mains or battery operated

TECH TIP! Has SSB!

Specifications	
FM	87.5-108.0MHz
MW(AM)	522-1620kHz (9kHz); 520-1710kHz (10kHz)
AIR/SW	118 - 137MHz / 1799-29,999kHz
Dimensions	310(W) x 195(H) x 100(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1945	$179.00	$160.95	$142.95

DAB+ RADIOS

Portable DAB+/FM Radio with Earphones

An ultra-compact DAB+ radio that fits in your pocket. Never miss your favourite radio stations while you run, cycle, commute or just doing day-to-day activities. Despite its miniature size, it provides excellent reception and crystal clear digital sound. Runs on 2 x AAA batteries, it is also equipped with a standard FM radio.

- Earphones included
- Variable EQ
- Program lock
- Favourites memory
- Dimensions: 68(L) x 38(W) x 21(H)mm

NOT AVAILABLE IN NEW ZEALAND

	Cat.	Qty 1+
	AR-1754	$49.00

Portable DAB+ Radio With FM Tuner

A stylish and affordable way to listen to crystal clear digital radio and all the added channels it has to offer. Features a 35mm colour TFT screen, rechargeable li-ion battery with long battery life and easy to use user interface. It offers full or quick scan of all DAB+ channels, RDS with program type, real-time auto clock, date, channel name and radio text, which is displayed on the LCD screen which offers multiple backlight options. Supplied with high quality stereo earpieces.

- 5 to 90 minute sleep timer
- 30 station presets each for DAB+/FM radio

Specifications	
Radio format support	Digital DAB+ & FM
FM Frequency	87.5-108MHz with RDS
DAB+ Freq	Band III (174.0-239.0MHz)
Speaker power output	4Ω, 0.5W (RMS)
Headphone Output	32Ω, 0.15W (RMS)
Power Source	Mini-USB charge socket with DC Adaptors Cable (5V,0.5A)
Charging Time	6 hours
Usage Time	Up to 6 hours (Speaker mode)
	Up to 15 hours (Headphone mode)
Weight	120g
Dimensions	113(L) x 69(W) x25(H)mm

NOT AVAILABLE IN NEW ZEALAND

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1904	$79.95	$71.95	$63.95

DAB+ Radio Component

Designed to fit with standard size hi-fi components, this tuner offers a complete future-proof DAB+ radio solution; just sit it on top of your existing hi-fi receiver. Like all DAB+ devices, it displays program, artist, song and station information and has full preset memory functions. Not every station is currently broadcasting on digital, so there's also an FM section with station presets, auto-tuning etc. For anyone who's heard digital radio, the future is as crystal clear as the sound quality.

Specifications	
Outputs	RCA analogue, S/PDIF optical digital
Station presets	6
FM	88 - 108MHz
Dimensions	430(W) x 72(H) x 240(D)mm

NOT AVAILABLE IN NEW ZEALAND

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1753	$169.00	$151.95	$134.95

TURNTABLES

USB Turntable with Amp

Copy your LPs, 45s or even 78s straight to your PC, or simply listen to your record collection via the built-in amp and speakers. It also has auxiliary RCA outputs so you can run it to a separate amplifier. Finished in contemporary white piano finish with blue LED accents.

- USB cable and software included
- Contemporary look
- 320(W) x 265(D) x 85(H)mm
- Suits XP, Vista & MAC

TECH TIP!
USB & Analogue Audio Outputs

	Cat.	Qty 1+	Qty 3+	Qty 6+
USB Turntable	GE-4056	$69.00	$61.95	$54.95
Spare Stylus - Pk 2	GE-4137	$19.95	$17.70	$15.70

Turntable Player with Built-in Pre-Amp & PC Encoding

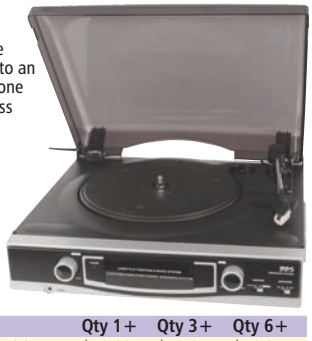
A contemporary design turntable that converts your old vinyl to modern digital WAV, MP3 or OGG format. It has a high quality magnetic cartridge which ensures clear and distortion free conversion. Equipped with a built-in pre-amp, it has a line level RCA output for component or amplifier integration. Incorporating a belt drive system, that is selectable between 33/45 RPM speeds and an auto stop function.

- Mains powered
- Dimensions: 370(L) x 350(D) x 95(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Turntable	GE-4134	$99.00	$88.95	$78.95
Spare Stylus	GE-4135	$24.95	$22.35	$19.70

3 Speed Turntable with Speakers & Audio Output

Spin your vinyl records with this modern turntable. The built-in speakers allow you to listen to your vinyl collection directly from the unit. It has a line level output for connection to an external amplifier. Features a 3.5mm headphone jack for personal listening with adjustable bass control. Great for the family home or apartment.



- 33/45/78 RPM
- Stereo amplifier
- Automatic stop
- 45 RPM adaptor
- 3.5mm headphone jack
- Mains powered
- Dimensions: 350(L) x 310(D) x 130(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Turntable	GE-4136	$59.00	$52.95	$46.95
Spare Stylus - Pk 2	GE-4137	$19.95	$17.70	$15.70

TURNTABLES ACCESSORIES

Carbon Fibre Record Brush

Carbon fibre brushes are the best way to remove surface grit before playing. Millions of microscopic hairs get into every groove and when you're finished, the built-in handle has a cleaning bar to get rid of the dust from the bristles. Essential for every turntable owner.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4051	$9.95	$8.75	$7.75

Video, Audio & CD Drive Belt

A selection of high quality drive belts for repairs and maintenance of a wide variety of video and audio equipment. The pack contains 25 of the most popular sizes in a combination of square and flat belts. There are 21 square belts ranging from 23mm to 120mm and 4 flat belts covering 56mm to 93mm. Belts lean more towards video use.

D	T	W	D	T	W	D	T	W	D	T	W
23	S	1.7	40	S	1.2	70	S	1.2	93	F	10.0
23	S	2.0	45	S	2.0	71	S	1.2	97	S	1.2
24	S	2.0	56	F	8.0	72	S	1.2	98	S	2.4
24	S	1.2	60	S	1.0	76	F	6.0	114	S	1.8
26	S	1.9	68	S	1.2	83	S	2.0	120	S	1.2
26	S	1.8	70	S	1.0	91	F	5.8	120	S	2.3
32	S	1.2									

D = Inside dia in mm, T = Type (Square or Flat), W = Width in mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	HP-0650	$19.95	$17.70	$15.70

DISCOUNT TRADE CARD

If you regularly purchase electrical or electronic goods to be used for business purposes you may qualify for a Jaycar Electronics Trade Card which entitles you to substantial discounts on most Jaycar products. Discounts range from 5% to 30% depending on the type and quantity of product purchased. Excludes Kits & Books.

*ABN will be required - see our website or Store Manager for further details.

Players & MP3 Encoders

USB CASSETTE PLAYERS / ENCODERS

5 in 1 Multi-function Stereo with Direct Encoding

The unit is equipped with a full size turntable to play different size LPs in 3 speeds; a CD and cassette player, an AM/FM radio. It also comes with an SD/USB MP3 player and recorder. The recorder allows direct encoding to the USB or SD from the CD or turntable or even copy from USB to SD or vice versa! A truly powerful and versatile unit, crystal clear music is played through a pair of stereo speakers and has RCA line outputs for amplifier or Hi-Fi system integration.

- Belt drive system
- Amplified output power 2 x 2WRMS
- Programmable CD memories
- Bass boost function
- Built-in amplifier
- Stereo speakers - 5 watt @ 4Ω
- Repeat one/all function
- Dimensions: 370(L) x 300(D) x 170(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Music Centre	GE-4132	$199.00	$178.95	$158.95
Spare Stylus - Pk 2	GE-4137	$19.95	$17.70	$15.70

CD to USB/SD Encoder/Player with Clock & Radio

The perfect multi-functional device for listening & ripping your music collection. The music box allows you to record your CD collection straight to SD card or memory stick. You can also record directly from USB drive to SD card or vice versa. This modern & user friendly design also features a crystal clear AM/FM tuner, blue back light LCD, alarm clock with sleep & snooze function. Wake up to your choice of radio, buzzer, CD or favourite songs stored on SD card or memory stick. Features battery back up, protects you're settings in case of a power failure.

- CD / CD-R, RW / MP3-CD playback
- USB / SD card reader
- Repeat one / All / Program / Random play
- Blue backlit LCD panel
- AM / FM digital tuner
- Store up to 40 stations
- Built-in amplifier and stereo speakers
- AUX in & Headphone output
- Requires 2 x AAA batteries (not included)
- Dimensions: 250(W) x 204(D) x 85(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4138	$69.00	$61.95	$54.95

Cassette to USB/SD Encoder/Player with Clock & Radio

Bring your 80s and 90s music collection back to life with the multi-function Cassette Player. Digitally encode your old cassette tape collection straight to SD card or memory stick or use as a standard cassette player with its high quality amplified internal speakers. The unit also allows recording directly from a USB drive to SD card or vice versa. This modern & user friendly device also features a crystal clear AM/FM digital tuner, blue back light LCD, alarm clock with sleep & snooze function.

- Cassette playback
- USB / SD card reader
- Repeat one / all / Program / Random play
- Blue backlit LCD panel
- AM / FM tuner
- Store up to 40 stations
- Built-in amplifier and stereo speakers
- Line in & Headphone output
- Requires 2 x AAA batteries
- Dimensions: 250(W) x 204(D) x 85(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4139	$99.00	$88.95	$78.95

USB Cassette Player with Digital MP3 Encoding Using a PC

Transform your beloved cassette tape collection into digital MP3 format directly via a PC. This versatile music box features cassette playback, high quality amplified speakers, crystal clear AM/FM tuner, blue backlight LCD and alarm clock functions. It also comes complete with USB cable and easy to use Audacity software to convert your tapes to MP3.

- Play/record music directly to PC via USB
- Store up to 30 FM stations
- Line in & headphone jack
- USB cable and Audacity software included
- Blue backlit LCD panel
- Built-in amplifier and stereo speakers
- Windows compatible
- 250(W) x 204(D) x 85(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4140	$79.95	$71.95	$63.95

Portable Cassette Tape to MP3 Encoder with PC Connection

Dust off your old cassette tapes and rescue your retro-chic 80's and 90's music collection with this tape to MP3 encoder. Simply install the included software to your computer, plug in the encoder via USB and you're ready to digitally convert, restore and archive all your precious cassette music. Digitally remaster the soundtracks of your youth to enjoy and share on CD, YouTube, iPod®, iPhone® etc.

- Supplied with USB cable, simple to follow instructions, plus software: MAGIX Audio Cleaning Lab SE and Audacity.
- Play, stop, rewind and fast forward buttons
- Small, compact and portable for play and transfer anywhere
- Converts to MP3 or WAV file formats with track recognition
- Plays chrome and normal cassette tapes
- Includes headphone socket
- PC requires 1 x USB port and 1 x CD drive
- Windows compatible software
- Powered from USB port or requires 2 x AA batteries
- Size: 118(W) x 93(L) x 32(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4071	$69.95	$62.95	$55.95

CD PLAYER / STACKER

DVD/CD Player with 5 Disc Changer

For the serious movie and music buff. A feature packed DVD Player that will provide countless hours of playback without having to change discs. It features a 5 DVD/CD disc changer which enables you to load 4 discs while one other is playing. It also has a Karaoke CD+G function, two microphone inputs with individual level controls and a USB, SD/MMC card reader for complete playback flexibility. Complete with component and composite video output, and digital and analogue audio outputs.

- Mains powered
- Formats: AVI, DIVX, MPEG2, MPEG4, WMA, DAT, VOB, MP3, WAV
- Power requirements: 90 - 250VAC, 50/60Hz
- Power consumption: 25W
- Dimensions: 496(L) x 416(W) x 152(H)mm

Specifications	
Frequency Response	20Hz 0 20kHz
S/N ratio	>80dB
Dynamic range	>70dB
Outputs	L/R Stereo, Coaxial, Optical. 5.1
TV Lines	250
TV System	Auto/NTSC/PAL
Outputs	Composite, S-Video, VGA, Component

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-0489	$349.00	$315.00	$279.00

DIGITAL CONVERTER

RCA to USB Digital Converter

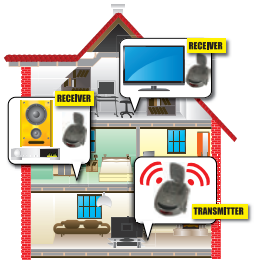
Studio quality recording solution. Suitable for converting any line-level audio device to USB for stereo PC recording. RCA to USB converts analogue to digital audio in high resolution.

Simply install Magix Audio Cleaning Lab SE & Audacity software included to import your music & optimise sound recording quality.

Specifications	
Audio output	16-bit 44.1kHz digital
Recording software included	
Suitable for PC & MAC	
Cable Length	1.2 metres

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4050	$34.95	$31.45	$27.90

WIRELESS AV SENDERS



AV Senders are a convenient way to transmit audio and video signals across the home, office or building without the need to run wires. Recent technological advances in digital transmission has also improved the quality of the signal transmitted, ensuring a clean, uninterrupted signal.

Our models also include built-in infrared extenders so the channel or volume can be changed as if you were sitting in front of the sender.

Choose the new HDMI model to send signals in high-definition to a large screen TV in another room. Great for watching videos from a Blu-Ray player, XBOX™, PS3™ or Pay TV in another room in HD.

2.4GHz DIGITAL Wireless AV Sender

Our newest 2.4GHz Wireless Audio Video System uses the cutting-edge design in wireless digital technology to send stereo audio and video around your home. Watch your favourite TV programs or listen to Hi-Fi quality stereo sound in anywhere of your home without the need to run extension cables. Also integrates an infra-red extender which allows control of the settings from the receivers end. Achieve up to 100 metres line of sight with the supplied antenna, or greater distances using a higher gain antenna (not included) with a SMA plug. A great new digital solution that provides crystal clear reception without interferences. Supplied with power adaptors.

- 2.4GHz band, FHSS (Frequency Hopping Spreading Spectrum)
- Digital wireless technology to resist interference
- 128bit AES encryption to protect personal privacy
- IR extender function (also suitable for Foxtel® STB)
- IR range 30 to 57kHz
- Compatible PAL and NTSC format
- 2.4GHz DIGITAL Transmits distance up to 100m (clear line-of-sight)
- Dimensions: 170(W) x 130(D)x 43(H)mm

TECH TIP!
DIGITAL Technology 2.4GHz

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1872	$139.00	$124.95	$110.95

2.4GHz DIGITAL HDMI AV Sender/Receiver

NEW 2013

A low cost solution AV sender designed to transmit high definition audio and video signals from your HD equipment to your HDTV or HD monitor without the use of long cable runs. Simply connect a HDMI cable from the transmitter to your HD device (Blu-Ray player, set-top box), then connect another HDMI lead from your receiver to your HDTV or HD monitor and you're ready to go. There's also an IR receiver/extender built-in so you can also use your remote to control the source from another room. Couldn't be easier! You can also use a 3.5mm to RCA (Red/White/Yellow) composite cable to transmit/receive to a non-HD device

- Transmit clear 1080p resolution video
- Security ID coded communication ensure privacy
- 3 x 1m HDMI leads included
- 5VDC Power supplies included
- Video modulation/demodulation: BPSK, QPSK, 16-QAM

TECH TIP!
DIGITAL Technology 2.4GHz

Video Receiver	
Supply voltage	5VDC
Supply current	180mA
Video input impedance	75Ohm
Input Jack	3.5mm AV, HDMI
Antenna gain	2dBi
Output image resolution	Up to 1080p
Output frame range	30fps
Dimensions	151(L) x 116(W) x 26(H)mm

Specifications	
Channel switching	FHSS mode up to 80 channels
RF bandwidth	12Mbps
Transmission range	200m clear line of sight

Video Transmitter	
Supply voltage	5VDC
Supply current	180mA
Video input impedance	75Ohm
Input Jack	3.5mm AV, HDMI
Antenna gain	2dBi
Dimensions	151(L) x 116(W) x 26(H)mm

Spare HDMI Receiver - AR-1873

	Cat.	Qty 1+	Qty 2+	Qty 4+
Transmitter/Receiver	AR-1871	$149.00	$133.95	$118.95
Extra HDMI Receiver	AR-1873	$89.00	$79.95	$70.95

1 YEAR WARRANTY

5.8GHz Wireless AV Transmitter & Receiver

TECH TIP!
5.8GHz!

Exceptional performance and value for money continues to make this 5.8GHz wireless AV sender one of our most popular products. Now in its third generation with a more compact size, increased range, and an upgraded remote control extender with larger bandwidth to cover many pay TV controllers.

Shifting wireless transmissions to the 5.8GHz band allows you can avoid the interference from the ever increasing number of items using the 2.4GHz band. Examples of devices which can cause 2.4GHz interference include cordless phones, Bluetooth® devices, 802.11 wireless LAN systems, and even the humble microwave oven. This transmitter and receiver set allows you to beat the congestion and use the assured picture quality of a 5.8GHz system to provide hassle-free wireless sharing of AV signals all over your house, office, factory or shop.

Depending on conditions it is capable of transmitting composite video and stereo audio signals over distances up to 50m. Using the directional antennas you can steer the transmission to maximise performance, even sending the signal through walls and floors. With four user selectable channels you can even use multiple sets to send different signals within the one site, ideal for sending the pay TV to your entertainment area while you send the DVD signal to the rumpus room.

- Supplied as a transmitter and receiver pair
- Expandable to multiple TVs using additional receivers (sold separately)
- Directional antenna minimises multi-path interference
- IR remote control repeater circuit to operate source from receiver end
- Improved IR repeater suitable for controllers with carrier frequencies from 38 to 60kHz
- Includes IR output lead to direct remote control signals to required device
- Supports PAL and NTSC signals

Also Available:
AR-1879 Additional 5.8GHz Wireless AV Receiver

	Cat.	Qty 1+	Qty 2+	Qty 4+
Transmitter / Receiver	AR-1878	$99.00	$88.95	$78.95
Extra Receiver	AR-1879	$69.00	$61.95	$54.95

1 YEAR WARRANTY

Specifications	
Power supply	2 x 9VDC (included)
Transmission Range	50m line of sight
Dimensions	150(L) x 112(W) x 110(H)mm (with antenna up)

Remote Controls

AV SENDERS (CONTINUED)

5.8GHz DIGITAL HDMI Sender/Receiver

Transmit real time 1080p HDMI signal without any video loss or compression to a flat panel TV in another room. It uses the WHDI standard for transmitting uncompressed HDMI signals wirelessly to a receiver in any room up to 25m away. The unit is able to transmit to up to four receivers, however will only display to one receiver at any given time. An IR receiver can be plugged into the sender unit so you can use any remote control to operate the source from the receiving end. Setup is truly plug and play, you will be up and running in a matter of minutes.

Specifications	
Operating frequency	5.8GHz
Video input resolution	1080p, 1080i, 720p, 576p, 576i, 480i
Audio format support	Up to 10Mbps, up to 192kHz x 24bit AC-3 and DTS
Infra-red Carrier Frequency	38kHz
IR Frequency	38kHz
Data transmission rate	3Gbps
RF Power	38kHz
Latency	< 1ms
Power consumption	6-7W
Receiver/Sender dimensions	154(H) x 92(W) x 20(D)mm

TECH TIP!
DIGITAL Technology 5.8GHz

1080p

Add-ons available separately
- Extra receiver see AR-1876
- 4 input HDMI switcher designed to plug directly into the transmitter see AR-1874

1 YEAR WARRANTY

4 INPUT HDMI SWITCHER FOR AR-1877

To be coupled with our 5.8GHz Wireless HDMI Sender/Receiver (AR-1877) to allow up to 4 HDMI sources to be connected to the wireless transmitter and switched between. It docks horizontally onto the transmitter and is powered directly from it. Also supplied with 4 infra-red emitters to control up to 4 HDMI devices.

1 YEAR WARRANTY

- Dimensions: 154(H) x 55(W) x 20(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 4+
HDMI Transmitter/Receiver	AR-1877	$249.00	$225.00	
Extra Receiver	AR-1876	$149.00	$133.95	$118.95
4 Input HDMI Switcher to suit AR-1877	AR-1874	$49.95	$44.90	$39.90

REMOTE CONTROLS

Remote Control for Recordable Digital Pay TV

Replace your lost or broken pay TV remote control at a fraction of the cost of the genuine brand names, or just keep a spare. Including buttons to control the special record, live pause and playback features of the latest recordable digital Pay TV services, you will have complete control over your Recordable Pay TV subscription.

- Compatible with recordable pay TV set top boxes
- Operates all TV essential functions
- Includes controls for record, live pause and playback features
- Requires 2 x AA Batteries
- Approx 210mm long

NEW LOWER PRICE

1 YEAR WARRANTY

NOT AVAILABLE IN NEW ZEALAND

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1737	$19.95	$17.70	$15.70

6 in 1 USB Programmable Universal Remote Control

Unlike a conventional universal remote control, the database of codes for this remote control is stored on, accessed and shared via your PC. Use the provided software for easy setup or to individually assign a function to each button. Regular updates ensure the database is up-to-date and that a new upgrade (a TV for example) doesn't render your remote control useless. Not only can it learn new IR codes, but should you forget the make and model of your device, it can search for a set of IR codes that best matches the remote control.

- Control up to 6 devices (TV, SAT, DVD/VCD,AUX)
- Database search, database import, export and upload
- Customisable or use original remote control settings
- Regular database updates
- IR code learning
- Up to 4 macro buttons
- Advanced IR code search
- Requires USB2.0, plug and play, no additional drivers required
- Requires 3 x AAA batteries (not included)
- USB cable supplied.
- Compatible with Windows 2000/XP/Vista/7
- Dimensions: 190(L) x 48(W) x 20(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1719	$29.95	$26.90	$23.70

Universal Remote Control with Keyboard

As televisions morph into fully connected displays that can perform most of the functions of a simple PC, the need for remote controls with greater functionality becomes evident. This unit combines the key layout of a standard remote for controlling TVs, Blu-ray/DVD players and when you flip it over you have a full QWERTY keyboard with optic finger navigation for typing text into web browsers, using instant message programs on your smart TV/media player, or playing games. It is a learning remote so it's easy to give it the capability of all your remote controls in the one simple package.

- 42 keys for remote
- 41 keys for keyboard
- Optic finger navigation
- IR receiver
- Requires 2 x CR2025 batteries (included)
- Dimensions: 167(L) x51(W) x 15.3(D)mm

1 YEAR WARRANTY

Front

Back

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1723	$34.95	$31.45	$27.90

AIR CONDITIONER REMOTE

Universal Remote Control for Air Conditioners with Backlit LCD

A feature rich replacement for a lost or broken air-con remote. The unit has an easy to read blue backlit LCD for night control and all the buttons you'll need to control most functions of your air conditioner. Standard temperature controls, swing, vane, fan, timer, sleep mode and more are all featured on the control. This unit is compatible with most air conditioners capable of identifying with up to 2000 models. It also conveniently shows the time.

- Requires 2 x AAA batteries
- Includes mountable cradle for remote
- Switch between degrees Celsius and Fahrenheit display
- Dimensions: 165(L) x 55(W) x 25(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1731	$24.95	$22.35	$19.70

SCREEN MAINTENANCE

Screen Cleaning Kit

Removes dust and fingerprints from LCD screens effectively without streaks, scratches or stains. The three sided cleaner has a soft microfibre cloth to prevent scratches, and the cleaning solution has a unique formula for an effective clean. The screen cleaner and cleaning solution pack away for easy storage.

- Includes 25ml cleaning solution bottle
- Dimensions: 150(L) x 45(H) x 30(D)mm

NEW LOWER PRICE

Note: Screen not included

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1417	$6.95	$6.25	$5.50

LCD Screen Cleaning Kit

Keep your computer, TV and other LCD screens clean with this easy to use kit. Remove dust and fingerprints without streaking, scratching or staining. The special solution removes those greasy fingerprints and the elastic anti-static brush and scratch free microfibre cloth are excellent for eliminating dust and grime.

- Elastic anti-static Brush
- Drip-free cleaning solution
- Special microfibre material which is capable of preventing panel scratch and will not harm LCD protective coating.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AR-1418	$11.95	$10.70	$9.50

TV MOUNTING BRACKETS

Plasma/LCD/LED TV Wall Brackets

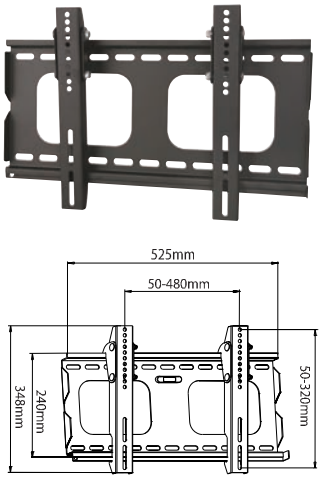
No longer is it an expensive exercise to impress your friends and neighbours with the contemporary styling of a wall mounted LCD or Plasma TV. Our range of universal LCD and plasma TV brackets will be perfect for most installations, suiting panel sizes from 23" up to 60" and weighing up to 80kg - and the prices will leave plenty of room in the budget for a new set of AV cables and wall plates to complete the installation.

- Models available to suit Plasma/LCD/LED TVs from 23" - 60"
- Safety lock for security (CW-2822 and CW-2826 only)
- VESA standard compliant
- Solid steel construction
- Mounting hardware and instructions included

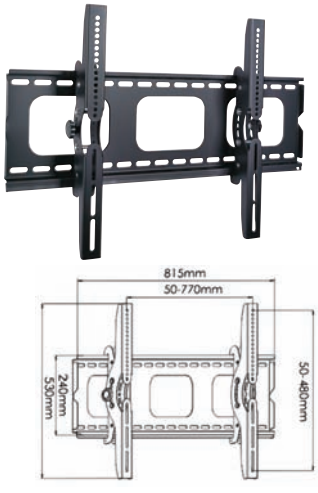
1 YEAR WARRANTY

Four types available:

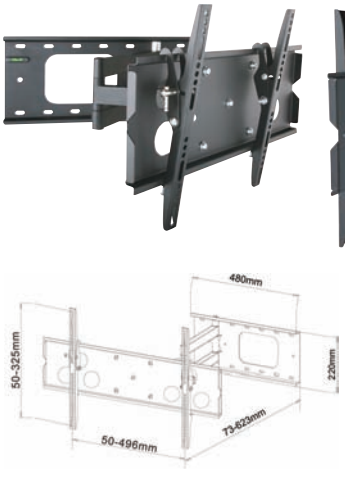
SUITS PANELS 23" TO 37" - 45kg
Is the smallest model, designed for LCD TVs from 23 - 37" in size and weighing up to 45kg. Despite the low price, it's still solidly made and features a security locking bar. It can be mounted flat or at a fixed tilt angle of 5°, whilst the TV is only spaced 38mm from the wall. Mounting plate is 525mm wide.
Cat. CW-2826



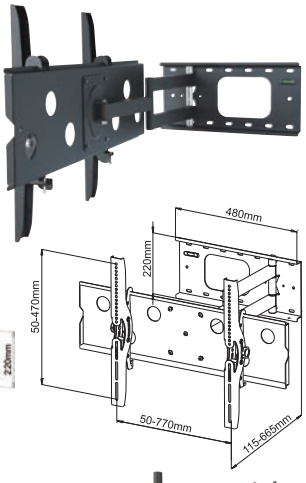
SUITS PANELS 32" TO 60" - 80kg
Is the basic model for the larger LCD and plasma TV sets, suitable for panel sizes from 32 to 60" and weighing up to 80kg. This model has an adjustable tilt feature to allow +/-15° tilt and will position the TV 8cm from the wall. Also features a security locking bar to deter against theft. Mounting plate allows installation on either 450 or 600mm stud centres.
Cat. CW-2822



SUITS PANELS 23" TO 37" - 45kg
Provides full motion off the wall. The 620mm extension arm gives a range of rotation of 180° and tilt of -12°, so it is ideal for mounting in the corner of a room, or mounting the TV in an otherwise awkward and unviewable position. This model also allows for 2° lateral roll to ensure the TV is perfectly level after installation. Accommodates TVs from 23 to 37" up to 45kg.
Cat. CW-2829



SUITS PANELS 32" TO 60" - 80kg
Provides full motion. The 660mm extension arm gives a range of rotation of 180° and tilt of ±15°, so is ideal for corner mounting, or mounting the TV in an otherwise awkward and unviewable position. It also allows for ±2° lateral roll to ensure the TV is perfectly level after installation. This model also accommodates TVs from 32 to 60", up to 80kg, and installation on 450 or 600mm stud centres.
Cat. CW-2825



	Cat.	Qty 1+	Qty 5+	Qty 10+
Suits panels 23" to 37" - 45kg	CW-2826	$59.95	$53.95	$47.90
Suits panels 32" to 60" - 80kg	CW-2822	$89.95	$80.95	$71.95
Suits panels 23" to 37" - 45kg	CW-2829	$109.00	$97.95	$86.95
Suits panels 32" to 60" - 80kg	CW-2825	$149.00	$133.95	$118.95

RELATED PRODUCT...
For Computer Monitor Brackets see page 416-446

Ultra Slim LED/LCD Tilting Wall Mounts

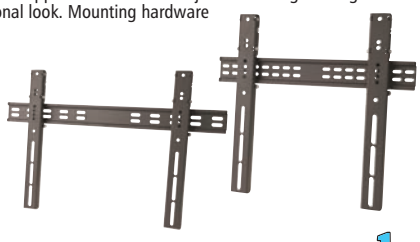
Ultra thin tilting wall brackets for new LED/LCD TVs allow 15° of tilt and mount only 19mm from the wall once closed for optimal viewing experience. Heavy duty steel construction for maximum support and effortless adjustment designed to give your expensive TV a professional look. Mounting hardware and instructions included.

- Mounting profile: 19mm
- Load capacity up to 25kg
- VESA standard complaint

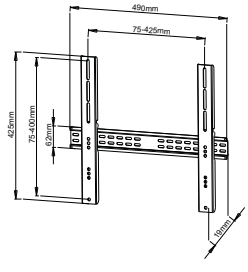
Two models available:

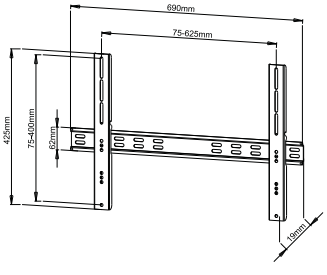
For 23" - 55" LCD/LED TV Sets CW-2836

For 40" - 65" LCD/LED TV Sets CW-2838



1 YEAR WARRANTY



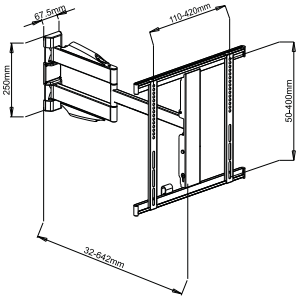


	Cat.	Qty 1+	Qty 5+	Qty 10+
23" - 55"	CW-2836	$39.95	$35.90	$31.90
40" - 65"	CW-2838	$49.95	$44.90	$39.90

Ultra Slim LED/LCD Articulating Wall Mounts

Tilt, pan and swivel for maximum viewing flexibility - perfect for corner mounting your new flat screen TV. This ultra thin articulating wall bracket for new slim-line LED/LCD TVs allows 15° of tilt and 180° of swivel while mounting the TV only 32mm from the wall at minimum, and 642mm at full extension. Solid aluminium and steel construction for stable installation and nylon washers for fluid movement. Also features a cable management system to protect and conceal cables for a clean clutter-free look. Mounting hardware and instructions included.

- Universal and VESA compliant



Specifications	
Tilt	15°
Swivel	180°
Mounting profile	32mm
Maximum extension	642mm
Load capacity	up to 25kg
Suitable for	32-55" flat screen TVs

1 YEAR WARRANTY

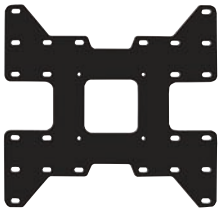
	Cat.	Qty 1+	Qty 5+	Qty 10+
	CW-2852	$119.00	$106.95	$94.95

TV Brackets & Set Top Boxes

VESA BRACKET ADAPTOR

Universal VESA Adaptor

Adapt any VESA mounting TV to any bracket. Many LCD or plasma brackets on the market are only designed to take TVs with standard 200mm or larger mounting centres, thereby limiting the range of brackets you can use with some TVs. This handy adaptor solves the problem by providing centres for 100, 200 and 300mm VESA mounts.



- Solid steel construction, black finish.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	CW-2815	$24.95	$22.35	$19.70

WALL BRACKETS

Monitor Wall Brackets

DOUBLE ARM LCD MONITOR BRACKET

Specifications	
Type	LCD Double Swing Arm, Wall Mounting
Max Weight	22kg (50lbs)
Mounting System	VESA 50 x 50, 75 x 75, 100 x 100
Tilt Angle	5° up, 20° down
Swivel Angle	160° left & right

Cat. CW-2813

LCD MONITOR WALL BRACKET

Specifications	
Type	Wall Mounting
Max	Weight: 5kgs (11lbs)
Mounting System	VESA 50 x 50, 75 x 75, 100 x 100
Tilt Angle	20° up and down
Swivel Angle	120° left and right

Cat. CW-2814

	Cat.	Qty 1+	Qty 5+	Qty 10+
Double Arm LCD	CW-2813	$69.95	$62.95	$55.95
LCD Wall	CW-2814	$39.95	$35.90	$31.90

PROJECTOR BRACKETS

CEILING-MOUNT

Designed to fit most of the projector models on the market, this bracket can be rotated through a full 360° and extends up to 370mm. Suitable for home theatre, conference rooms, AV rooms, media centres etc. Mounting hardware and instructions included.

- Rigid extruded aluminum construction
- Durable silver powder-coated finish
- Supports up to 15kgs
- Easy to install
- Cable management included
- Mounting hardware included
- User manual included
- Dimensions: 182(W) x 235 - 370(H) x 182(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Projector Mount	CW-2827	$79.95	$71.95	$63.95

TECH TIP

About VESA Mounting STANDARDS

The Video & Electronics Standards Association (VESA) has issued suggested standards for the attachment mounting systems for electronic visual displays also known as the Flat Display Mounting Interface. This is a family of standards defined by VESA for mounting flat panel monitors, TV's and other displays to stands or wall mounts, it is used on most modern flat-panel monitors and TV's.

Whilst these standards are quite detailed the basic details of the standards involve the size of the display and the relevant spacing and sizing of the hole to mount the display. The dimensions vary from 75 x 75mm to 800 x 400mm.

COMPARISION CHART FOR PLASMA-LCD-LED TV WALL BRACKETS

Cat No	Screen Size	Max VESA Dimensions	Max Weight	Horiz. Adj.	Vertical Tilt Adj.	Depth from Surface Bracket Dimension (HxWxD)
CW-2826	23" to 37"	400 x 200	45kg	No	0° to 5°	38mm 525 x 348 x 38mm
CW-2822	32" to 60"	600 x 400	80kg	No	+/-15°	80mm 815 x 510 x 80mm
CW-2829	23" to 37"	400 x 200	45kg	180°	-12°	73 - 623mm 528 x 350 x (73-623)mm
CW-2825	32" to 60"	600 x 400	80kg	180°	+/-15°	115 - 665mm 815 x 510 x (115-665)mm
CW-2852	32" to 55"	400 x 400	25kg	180°	0° to 15°	32 - 642mm 420 x 400 x 32 - 642mm
CW-2836	23" to 55"	400 x 400	25kg	no	0° to 15°	19mm 490 x 425 x 19mm
CW-2838	40" to 65"	600 x 400	25kg	no	0° to 15°	19mm 690 x 425 x 19mm

SET TOP BOXES

Economy Standard Definition DTV Set Top Box

If you have an older TV that doesn't have a digital tuner, you will need a DTV set top box that will receive and decode the signals so they can be displayed. With this set top boxe you can enjoy more channels, extra features and clearer reception on your old analogue TV at an excellent price. Effortless navigation of the user interface is done with the supplied remote control to browse through the available channels, display settings and other options.

With composite video and audio left and right outputs.

- Decodes standard definition digital TV signals
- Aspect ratio support: 16:9, 4:3 letterbox, 4:3 panscan
- Supports PAL and NTSC
- DVB-T/MPEG-2 compatible
- Remote control included
- Dimensions: 120(W) x 35(H) x 100(D)mm
- Spare remote: Cat. XC-4913 (sold separately)

Note: Not available in New Zealand

	Cat.	Qty 1+	Qty 4+	Qty 10+
Economy Standard Def DTV Box	XC-4914	$19.95		
Spare Remote Control for XC-4914	XC-4913	$7.95	$6.95	$6.25

HD Digital TV Set Top Box with USB Recording Playback

Digital and HD ready. This compact set top box unit receives crystal clear free-to-air digital TV in high definition. It incorporates a USB port for AV program recording as well as playback. Navigation is simple and easy with the full function remote control. Outputs are HDMI, component video and composite video.

- On-screen menus
- Selectable aspect ratio 4:3/16:9
- DVB-T & MPEG-2 HD & SD compliant
- Supports up to 1080i resolution
- Remote requires 2 x AAA batteries.
- Dimensions: 220(W) x 140(D) x 42(H)mm
- Spare remote: Cat. XC-4915 (sold separately)

Note: Not available in New Zealand

	Cat.	Qty 1+	Qty 4+	Qty 10+
HD Set top box	XC-4917	$59.95	$53.95	$47.90
Spare Remote Control	XC-4915	$9.95	$8.75	$7.75

12VDC HD Digital Set Top Box

Great for use on the road, this high definition set top box will pickup all the digital channels on offer in your locale. You can also plug in a USB drive and record TV in MPEG2 format to watch at a later date

- Output: HDMI, Composite, RF
- USB port for recording and playback
- Cigarette lighter cable included
- Suitable antenna LT-3143 (available separately)
- Dimensions:154(W) x 117(D) x 40(H)mm

Note: Not available in New Zealand

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4921	$69.95	$62.95	$55.95

High Definition DVB Twin Tuner with USB Record

More than your average HD set top box. This has a built-in twin tuner you can watch one program whilst recording another directly to an external flash drive or USB device. This jammed packed tuner is HD ready features resolution up to 1080i as well as an FM tuner. It has two USB ports; the front for easy record or playback access whilst the rear is ideal for hard drive connectivity for hundreds of hours of recording.

Features HDMI, component video, composite video outputs as well as RCA stereo and optical audio. Remote requires 2 x AAA batteries.

- Subtitle function
- On-screen menus
- Favourite channel presets
- Teletext decoding
- Electronic program guide
- FM radio tuner
- Full function remote control

Note: Not available in New Zealand

	Cat.	Qty 1+	Qty 4+	Qty 10+
	XC-4919	$149.00	$133.95	$118.95

DIGITAL TV ANTENNAS

The Digital Switchover is Actually Happening!
The digital switchover has officially been rolled out in several locations across Australia, and will be completed by the end of the 2013 calendar year with the countries major capital cities having their analogue TV broadcasts switched off, for good. This means that by the end of 2013, there will be no more analogue TV broadcasts in Australia.

Channel Re-Stacking
At the same time, the Australian Communications and Media Authority (ACMA) are using this Digital switchover as an opportunity to "re-stack" the broadcast frequencies, to simplify the broadcasting in different areas. It's quite simple; metro cities will have all Digital TV signal broadcast in VHF band 3, and regional/outer metro areas will be receiving their Digital TV on UHF frequencies.

What Does That Mean for You?
Well in most cases, not very much. You see, in metro cities the majority of Digital TV was already being broadcast on VHF band 3, with only SBS and some other community channels broadcasting on UHF. So where before you required a "combination" VHF & UHF antenna to pick up all Digital channels, you now only need a VHF band 3 antenna. That doesn't mean you need to rush out and buy a new antenna; in most cases your existing combination antenna will work just as well as it did before, it just won't be receiving UHF signals any more. For a new installation or replacement of an old antenna in a metro location, it means that you will only require a VHF band 3 antenna, that is optimised for VHF band 3 signals. Of course, our range for 2013 introduces two new fantastic Australian made antennae for this exact purpose! In regional and outer metro areas, which will receive Digital TV exclusively on the UHF band, there is no change to Digital TV transmissions at all..... well not yet anyway (read on).

Proposed Spectrum Sell Off for Long Term Evolution Mobile Services (4G and beyond)
In order to keep pace with technology, and our increasingly insatiable appetite for wireless data communications, the ACMA is planning a sell-off of the upper end of current UHF TV frequencies, specifically the 700MHz spectrum. This spectrum is planned to be sold off to the Telcos for LTE technology, which is 4G and beyond mobile phone services. At the time of printing this auctioning of the spectrum has not yet occurred, but nevertheless the eventual sale could present an issue in households with TV antennas that receive UHF signals. It is not yet fully known what will be broadcast on this 700MHz spectrum, but there is every chance that whatever ends up on that spectrum could interfere with existing TV reception on the UHF bands. In order to prepare for this eventual sell-off of the spectrum, we have included "LTE band filters" on two of our brand name masthead amplifier products, as well as introduced an in-line LTE band filter.

As always, we do our best to keep paces with the changes in technology and the Digital TV landscape, so rest assured that no matter what lies ahead, Jaycar is your premier retail destination for TV antennae and reception equipment.

UHF/VHF ANTENNAS

UHF TV Antennas Band 4 & 5

Receive Bands 4 & 5 (channels 21-69)

These UHF TV antennas are extremely well priced when compared to similar products on the market, but don't let the price fool you – they still have excellent performance on both analogue and digital TV signals.

The two models shown boast an X-Type element design for wider bandwidth and higher gain, in two different sizes to cover a wide range of reception areas.

They feature a waterproof F-type PCB balun, water resistant elements, boom and reflectors made of metal, not plastic. Antennas are supplied in robust, easy to carry retail packaging and are very easy to assemble.

91 ELEMENT
Huge antenna suitable for deep fringe signal reception.

- Elements - 91
- Gain - 15 - 19dB
- Channels - 21 to 69
- Bands - 4 & 5
- Freq. - 470 to 862MHz
- Boom Width - 20mm sq
- Overall Length 2214mm.

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3182	$89.95	$80.95	$71.95

43 ELEMENT
Suitable for medium signal reception areas.

- Elements - 43
- Gain - 13dB
- Channels - 21 to 69
- Bands - 4 & 5
- Frequency - 470 to 862MHz
- Boom Width - 20mm sq
- Overall Length - 1234mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3181	$44.95	$40.45	$35.90

UHF Phased Array TV Antenna

This wideband phased array antenna suits analogue or digital TV and is ideal for country poor reception areas, where you have ghosting problems or are not in direct line of sight of the transmitter. (Gold Coast, Wollongong, Central Coast, Newcastle for example)

- Band: 4 & 5
- Can be used for horizontal or vertical polarisation.
- Measures 610(W) x 890(H)mm
- Digital TV ready

*Not suitable for all areas.

TECH TIP!
FOR COUNTRY DIGITAL AREAS

Matchmaster TV Reception Systems
For the Best

Specifications	
UHF Channels	21-69 (27-62 in NZ)
Maximum gain	11-13.5dB
Includes	F type PCB balun

get READY for digital TV

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3138	$69.95	$62.95	$55.95

Log-Periodic 32 Element VHF/UHF TV Antenna

Specifically designed with digital TV in mind, this combination VHF/UHF log periodic antenna picks up all the frequencies where digital TV is transmitted. The VHF band 3 elements fold in for compact packaging, are 7mm thick and made of heavy duty materials to minimise damage from our pesky Australian birdlife. Receiving only VHF band 3 (channels 6-12) and UHF bands 4 & 5 (channels 28-69) means doing away with those dastardly long elements which are only for picking up ABC analogue, the same ones that cockatoos love to sit on and destroy. All the plastics are UV stabilised and the balun has an F-type output for connection to your coax down lead. While not quite as strong as our Australian- made Digimatch antennas, this antenna offers similar performance in a cost effective, relatively compact package for receiving all your free to air digital TV channels with just one antenna. Comes packed in a compact box to reduce postage costs, and includes mounting clamp and twist-on F connector with rubber boot.

Specifications	
Elements	32
VHF	channels 6 - 12
UHF	channels 28 - 69
Gain	VHF 8dB, UHF 11dB
Avg.	F/B ratio: >20dB
Balun	F-type
Boom length	1130mm
Max Width	865mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3175	$79.95	$71.95	$63.95

TV Antennas

UHF/VHF ANTENNAS (CONTINUED)

DigiMatch VHF Band 3 Antennas

TECH TIP! FOR METRO DIGITAL AREAS

NEW 2013

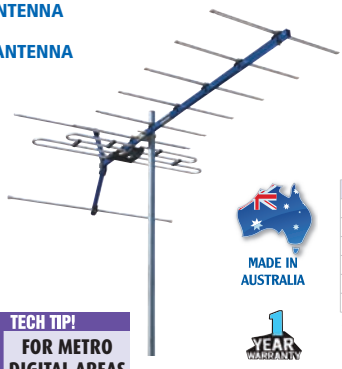
Major metro cities in Australia will be receiving their Digital TV broadcasts exclusively on VHF band 3 (channels 6-12) from the end of 2013. This means that after this date, there is no need to install a combination VHF/UHF antenna in a major metro city. These fantastic heavy duty VHF Yagi antennas made exclusively for Jaycar by Matchmaster have all the features you expect - high grade 12.7mm diameter aluminium extruded elements, "G-unit" dipole, UV stabilised black plastic isolators, stainless steel hardware, blue powder coated boom, and a high grade F-type balun for superior digital performance. And letís not forget these are 100% Australia made! A sure bet for the best Digital TV reception in your home.

MADE IN AUSTRALIA

Two models available:

DIGIMATCH 6 ELEMENT VHF BAND 3 ANTENNA
LT-3161

DIGIMATCH 10 ELEMENT VHF BAND 3 ANTENNA
LT-3165



Matchmaster TV Reception Systems For the Best

get READY for digital TV

MADE IN AUSTRALIA

1 YEAR WARRANTY

Specifications	LT-3161	LT-3165
Elements	6	10
Gain	8dB	9.5dB
Avg. VSWR	<2.2:1	<2.0:1
Max F/B ratio	19.4dB	21.5dB
Channels	6-12	6-12
Frequency	177.5	226.5MHz
Boom length	686mm	1548mm
Max width	900mm	900mm

TECH TIP! FOR METRO DIGITAL AREAS

NOT AVAILABLE IN NEW ZEALAND

	Cat.	Qty 1+	Qty 2+	Qty 5+
6 Element	LT-3161	$99.00	$88.95	$78.95
10 Element	LT-3165	$149.00	$133.95	$118.95

Combination VHF/UHF DigiMatch Antenna

These Australian made heavy duty antennas are the ideal metropolitan antennas for Digital TV as they are capable of receiving digital and analogue TV on VHF channels 6-12 and UHF channels 21-69. The UHF section of the antenna employs X-type elements for wider bandwidth and higher gain, whilst the VHF section has elements made from high grade aluminium strong enough to withstand damage from birds. The VHF section of these antennas can be mounted horizontally or vertically for areas such as Canberra and Shepparton, making them suitable for all TV transmitters throughout Australia. Their overall design has improved figures for gain, VSWR and F/B ratio to give a superior carrier to noise ratio - this means more signal, less noise and therefore much lower chance of picture dropouts.

The Digital anti-reflection Matching System (DMS) employs a diplexer to electronically couple the VHF and UHF sections of the antenna together, giving 20dB isolation to achieve a better Bit Error Ratio (BER) and maximum digital performance.

- Ready for today and future UHF allocations and Plus One networks
- F-Type PCB balun & diplexer for quick installation and improved VSWR
- Black ABS UV resistant plastics
- 12.7mm dia. VHF elements
- Stainless steel screws
- Australian designed and manufactured
- Powder coated boom (blue)

get READY for digital TV

Matchmaster TV Reception Systems For the Best

NOT AVAILABLE IN NEW ZEALAND

DIGIMATCH VHF/UHF X-TYPE COLINEAR 27 ELEMENT
Receives Band 3, 4, and 5 (Channel 6-12 and 21-69)

Specifications	
Elements	27
Gain	VHF 7dB, UHF 11dB
Avg. VSWR	1.9:1
Avg. F/B Ratio	VHF 12dB, UHF 18dB
Boom length	1320mm
Max width	900mm

Includes FREE roll of Coax-seal (Cat. NM-2828)

Supplied in stout, compact cardboard packaging

MADE IN AUSTRALIA

NEW LOWER PRICE

1 YEAR WARRANTY

DIGIMATCH VHF/UHF ECONOMY 7 ELEMENT
Receives Band 3, 4, and 5 (Channel 6-12 and 21-69). Perfect for caravans or space-conscious metropolitan areas. Designed to enable positions in all horizontal, vertical or horiz/vert. polarities

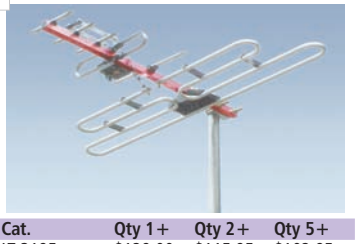
- Suitable for all transmitters across Australia
- High performance / Heavy duty construction
- Stainless steel connection screws
- Black UV resistant plastics / Powder coated boom
- Supplied in stout, compact cardboard packaging

Includes FREE roll of Coax-seal (Cat. NM-2828)

Specifications	
Boom length	720mm
Max width	880mm

MADE IN AUSTRALIA

1 YEAR WARRANTY

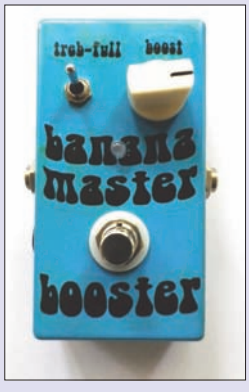


	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3195	$129.00	$115.95	$102.95
	LT-3172	$69.95	$62.95	$55.95

Dallas Rangemaster Treble Booster

Makers Name: Russell Reid

I recently got in to making guitar effects pedals aka 'stomp boxes'. My first one was from a kit, the second was a bit more ambitious and built from the ground up with parts from Jaycar.



The Dallas Rangemaster guitar pedal was originally designed in the 1960's and used to push the 'dark sounding' amplifiers of the time into overdrive and adding a fat and appealing edge to the guitar tone.

For more details scan the QR code or go to www.jaycar.com.au/makers

FIND OUT MORE IN STORE

Our staff can offer friendly and expert advice, from product information to electronics solutions; we're here to help.

DIGITAL ANTENNAS - OUTDOOR (CONTINUED)

Outdoor Omni-Directional UHF/VHF Amplified Digital Antenna

With inbuilt low noise and high gain booster, this compact and weather resistant outdoor digital antenna is ideally suited for caravans, boats, and other fixed or mobile applications where space is constrained or harsh environmental conditions require a little extra durability. Excellent wide frequency reception for local free-to-air analogue and digital TV, DAB+ digital radio as well as FM radio transmissions. It can be either base mounted or mast mounted and includes mounting bracket, 12V mains power adaptor and a 12V in-car charger.

Specifications	
FM	87.5 - 108MHz
VHF	174-230MHz
UHF	470-862MHz
Output level	Max 108dB
Impedance	75 ohms
Receiver dish size	350(Dia) x 60(H)mm
Mounting base size	120(Dia) x 70(H)mm

- SMD technology
- Anti-rust and UV protected

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3141	$89.95	$80.95	$71.95

Outdoor UHF/VHF/Marine TV Antenna

Digital ready. It rotates. Ideal for "grey nomads". This unit is ideal for the traveller. Because you could be in any part of Aust/NZ this antenna works on all frequencies. (Some better than others, we admit). It covers VHF low, down to 45MHz (channel 2) to 860MHz (channel 69).

It includes a signal amplifier AND a rotator motor built into the antenna housing AND a remote control for that. It also comes with approx. 8 metres of TV lead with a weatherproof plug on one end.

- 12VDC mains adaptor supplied
- Includes booster amp which will drive 2 x TV's
- Compatible with LT-3204 telescopic mast.
- Supplied with other hardware.
- Output 80 dBuV.
- Requires 2x AAA batteries

1 YEAR WARRANTY

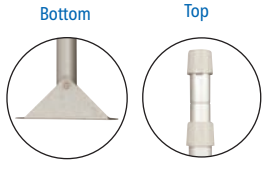
Antenna measures: 750(W) (deployed) x 300(L) x 100(D) (mm) (Folds down for storage)

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3143	$59.95	$53.95	$47.90

Telescopic Antenna Mast

With adjustable height and durable aluminium construction, this versatile telescopic antenna mast is suitable for just about any domestic application as well as marine and mobile use. It has a maximum height of 4.5 metres and includes a base mount and three guy wires for ensured stability.

- Suitable for multiple antenna use
- Easy installation and height adjustment
- 36mm diameter
- Maximum height 4.5 metres



NEW LOWER PRICE

1 YEAR WARRANTY

TECH TIP!
Ideal for Grey Nomads

Cat.	Qty 1+	Qty 4+	Qty 10+
LT-3202	$49.95	$44.90	$39.90

Caravan/RV (General Purpose) Mast

We have had many requests and finally found one. This unit in natural finish anodised aluminium is a telescopic mast suitable for TV and other antennas. It will extend to 1.5 metres in 3 sections. The top section is 27mm dia. which is compatible with almost all TV antenna mounting hardware. The bottom section is 35mm dia. which would easily be accommodated by U-bolt or other clamping hardware (not supplied).

The top section has a sturdy cap and features a slot which enables you to neatly thread the coax lead down through the mast.

- Length extended: 610mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
LT-3204	$24.95	$22.35	$19.70

Flat RF Cable with F Connector Sockets

Flat RF cable joining section that goes through closed windows and doors while allowing you to keep the window or door locked. Ideal for temporary antenna installations or tenants who want to fit a TV antenna without boring holes in the wall. Terminated to F-sockets either end.

- Length 200mm.

Cat.	Qty 1+	Qty 2+	Qty 5+
WV-7399	$4.95	$4.45	$3.90

INDOOR ANTENNAS

UHF/VHF Passive Indoor TV Antenna

Ideal for areas with good indoor TV signal this passive indoor antenna picks up TV signals without needing to be connected to power. Features both a UHF loop and extendable VHF rabbit ears mounted on a weighted plastic base.

Specifications	
Base and UHF Loop	190(H) x 120(W) x 84(D)mm
VHF Antenna Length	220-800mm
Cable Length	1.6m

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3114	$9.95	$8.75	$7.75

Indoor Flat Panel UHF/VHF Digital Antenna with Amplifier

An indoor antenna that will sit unobtrusively near your TV. An extremely capable unit featuring signal clear technology with extremely low noise circuitry. It is able to pick up both UHF/VHF signals as well as DAB+ radio. It is also coupled with a separate amplifier with independent UHF and VHF gain adjustments to give you greater control over your signal. The amplifier can be powered with the supplied mains adaptor or from a USB cable (mini plug lead not supplied). Though the unit does not require the amplifier, it may be necessary for areas with weak indoor reception.

Specifications	
VHF Frequency	45-230MHz
UHF Frequency	470-862MHz
Output	Max 78dB
Channels	0-12 & 20-75
Impedance	75 ohms
Panel Size	480(L) x 109(W) x 54(D)mm

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3156	$39.95	$35.90	$31.90

TECH TIP

INDOOR TV ANTENNAS?

Jaycar carries a great range of "indoor" type TV antennas in both passive & active gain models, which are good quality. Many people select such products hoping that they will offer satisfactory TV reception without the cost and/or hassle of a full outdoor TV antenna system. Often people who are renting premises cannot install a full TV antenna system anyway because they are not allowed to drill holes etc. The reality, however, is that indoor TV antennas rarely give totally satisfactory results.

The antenna element dimensions never correspond to broadcast frequencies for a start. Because you are inside, you may have no idea where the TV tower is anyway. Even if you knew where the tower was the antenna rarely has directional qualities. This makes the towers' location fairly meaningless. Trying to make an indoor antenna according to the laws of physics misses the point.

Despite this, indoor TV antennas can work amazingly well! Just don't get too scientific about it. They work best when you can throw a rock and hit the TV tower. As all the channels you will want to watch will not be in rock-throwing distance, some stations will work better than others. Wiggling the antenna around is really your only available technique. Indoor TV antennas are made for flat dwellers in large Western or Asian cities with high building density. In other words, all the TV towers will not be far away.

If you live in a "spread out" city and cannot see a TV tower, it is highly likely that an indoor antenna will not solve your reception problems. There may simply be very little signal for you to pick up. Just imagine walking into a darkened room at night. Even with your eyes wide open you see virtually nothing until your eyes adjust to the conditions. At best you can see, say the white frame of a door. You certainly would not be able to read! You would not blame your eyes because you could not see but people frequently blame an indoor TV antenna in a similar situation for "not working"!

So when you buy an indoor antenna - from us or anyone else - don't expect a lot. If you bring the product back and say "it doesn't work", we know that you are really blaming the messenger. You may think that our words are a bit harsh but we respect both your time and your money too much to tell you what you need to hear, not what you want to hear.

Indoor TV Antennas & Accessories

INDOOR ANTENNAS (CONTINUED)

VHF/UHF Active Indoor Digital TV Antenna

A step up from conventional rabbit ears with 28dB variable gain. Suitable for VHF, UHF, FM and DTV reception.

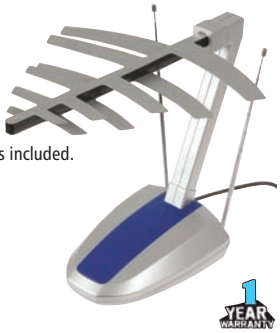
- Mains plugpack included.

Specifications	
VHF	54 - 239 MHz
UHF	470 - 821 MHz
Base	190(L) x 120(W)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3133	$44.95	$40.45	$35.90

Hi-Gain Indoor Digital VHF/UHF TV Antenna & Amplifier

This indoor Digital TV antenna includes an amplifier with variable gain up to 36dB. The amplifier is fitted with a 1.5m long TV-Out cable that is terminated with a male 'F' connector. The unit operates from a 12 volt mains adaptor that is included.



- 12 volt plug pack included
- Dimensions: approx 180(W) x 180(D)mm

Specifications	
VHF band	45-239 MHz
UHF band	470-860 MHz
VHF gain	30dB
UHF gain	36dB
Dipole length	1.12m

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3134	$59.95	$53.95	$47.90

Digital Indoor/Outdoor Antenna

As global television moves from analogue to digital, this indoor/outdoor digital antenna will be a great investment to your household. With its contemporary style design it may provide you with the high quality clear reception needed. The panel can mounted to the wall; great for minimising space. AC adaptor included.

End View

Specifications	
Frequency range	VHF - 174-230MHz, UHF - 470-862MHz
Antenna gain	10dB
Total gain	40dB
Impedance	75 ohm
Output	F female connector
Dimensions	502(L) x 235(W) x 76(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3137	$99.00	$88.95	$83.95

AM / FM ANTENNAS

Indoor AM Antenna

Stereo tuners aren't made with internal antennas. Most people listen to FM with their tuner, but for the rest who want AM, we have the answer - a loop antenna that can be easily left on top of your stereo cabinet of stored out of sight. It has built-in stand and fly leads to fit the antenna spring terminals on most tuners.

Specifications	
Frequency range	520 - 1660kHz
Dimensions	120(W) x 120(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3001	$19.95	$17.70	$15.70

FM Indoor Antenna

Simple ribbon type antenna (dipole) gives good performance in strong signal areas.

- 300Ω termination.

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3002	$3.95	$3.45	$3.15

SIGNAL FINDERS

Satellite Finder with LED Display

Align your satellite dish quickly and accurately with this handheld satellite finder. Connected between the satellite dish and set top box the meter displays signal strength on the 6 LED display. Once the meter picks up a signal use the adjustable sensitivity to fine tune the angle and lock in on the signal. A small compass is included to help you get the dish pointed in the right direction. Perfect for setting up permanent dishes as well as portable systems on caravans or RVs.

- Dimensions: 90(L) x 48(W) x 31(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LS-3302	$24.95	$22.35	$19.70

Digital TV Signal Strength Meter

Take out the stress from installing your digital TV antenna by using this DVB-T signal strength meter. No more multiple trips up to your roof to get that perfect picture. Connect the pocket sized DVB-T signal strength meter and adjust the angle of your digital TV antenna, the easy to read LED indicator lets you know when you've hit the right spot. Adapters included.

- Requires 1 x 9V battery
- Frequency range: 40-862MHz
- Input Level: 50-90dBuV

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3332	$39.95	$35.90	$31.90

DIPLEXER

Digimatch UHF/VHF Diplexer with DC Bypass

If you want to install a VHF and a UHF antenna on the same cable, you'll need a diplexer. The design allows tilting for easy installation and the cable entry is sealed against the weather. Quality Matchmaster product suitable for Australia and New Zealand, supplied with heavy duty clamp.

- F connections for faster installations
- Fully screened for impulse noise reduction
- Weatherproof housing
- Suitable for Australia and New Zealand use
- HDTV compliant

Specifications	
UHF	470 - 862MHz
VHF	45 - 230MHz
Dimensions	112(W) x 108(H) x 35(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3082	$29.95	$26.90	$23.70

TELEVISION AMPLIFIERS/SPLITTERS

Indoor Digital TV Amplifier UHF/VHF

NEW 2013

A portable and compact amplifier capable of boosting signals to passive indoor TV antennas for both digital and analogue signals. It can be powered from the supplied mains adaptor or USB (mini plug available separately) and features independent manual UHF and VHF gain adjustments to give you greater control over your signal. In-built signal clear technology with low noise circuitry will help to give you the best possible picture and video. Standard PAL input and output connections.

Specifications	
VHF Frequency	45 - 230MHz
UHF Frequency	470 - 862MHz
Gain	20dB
Noise	<3dB
Impedance	75 ohms
Dimensions	100(L) x 60(W) x 27(H)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
Single 6V	LT-3281	$24.95	$22.35	$19.70

UHF/VHF/FM Indoor Amplifier TV Splitters

NEW 2013

Split and amplify your UHF, VHF or FM signals with these handy amplifier splitters. Features high gain and low noise to ensure your signal is of a high quality. Both units can be wall mounted for greater convenience.

- Mains adaptor included

Specifications	LT-3282	LT-3284
Frequency range	47 - 900MHz	47-900MHz
Output(max)	2 x 87dBuV	4 x 80dBuV
Gain Average	20dB	15dB/10dB (VHF/UHF)
Noise	<2dB	<5dB
Power	12VDC/50mA	6VDC/50mA
Dimensions	110(L) x 70(W) x 35(H)mm	158(L) x 80(W) x 45(D)mm

	Cat.	Qty 1+	Qty 2+	Qty 5+
2 Way	LT-3282	$24.95	$22.35	$19.70
4 Way	LT-3284	$34.95	$31.45	$27.90

TELEVISION AMPLIFIERS (CONTINUED)

Indoor TV Amplifier/Splitters

NEW 2013

SINGLE OUTPUT

Such a simple and neat solution to boosting your TV antenna signals. The unit simply plugs into a mains outlet, and boosts your TV antenna signals through the F-type input and output sockets. There is also a mains output socket on the front so that you donít lose any power points behind your TV unit. Up to 20dB of amplification is provided, with a variable gain control.

Specifications	
Frequency range	46-860MHz
Gain	20dB
Gain control	15dB VHF, 10dB UHF
Noise figure: only	<3.5dB
Dimensions	96(L) x 60(W) x 40(D)mm

TECH TIP!
FEATURES F SOCKETS

2 WAY

Boost your TV signal indoors. The antenna lead is plugged into the amplifier, and there are two outputs for two TVs, both which have a 12dB boost. One outlet can be used for FM stereo if desired. - Runs on 240VAC mains, and includes a LED power indicator.

Kingray

4 WAY

This unit is an analogue and digital television splitter/amplifier for use in multiple receiver applications. The amplifier has F type input/output connectors and features variable gain on the VHF band. The unit operates from 240VAC and is mounted in a white ABS housing with integral mounting lugs. Size 60(W) x 40(H) x 85(L)mm. Adaptors are included to suit Belling Lee installations.

Specifications	
Frequency range	40 - 860MHz
Variable gain	0 - 6dB

Kingray

3 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
Single Output NEW	LT-3285	$39.95	$35.90	$31.90
2 Way	LT-3288	$49.95	$44.90	$39.90
4 Way	LT-3287	$99.00	$88.95	$78.95

MASTHEAD AMPLIFIERS FOR DIGITAL TV

UHF/VHF Digital TV Masthead Amplifier

A cost effective 26dB masthead amplifier suitable for digital, analogue, or HDTV reception. The unit is able to accept signals from separate UHF and VHF antennas, or UHF/VHF combination antennas, and output the amplified signal down a single cable. Features separate VHF and UHF gain controls, F-type connections, weatherproof plastic housing and optional FM trap. Supplied with power injector, PAL Male to F-Male lead, 2 x PAL-Female to F-Male adaptors and power supply.

Specifications	
UHF gain	26dB
VHF gain	18dB
Current consumption	80mA
Power supply	15VDC
Noise figure	UHF 1.5dB / VHF 2dB
Return loss	In 10, Out 8
HDTV Compliant	
Dimensions	125(W) x 102(H) x 45(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3275	$49.95	$44.90	$39.90

VHF/UHF/HDTV Masthead Amplifier - Digimatch

Designed in Australia specifically for harsh Australian conditions, this masthead amp is ideal for digital, analogue or HDTV reception in Australia or New Zealand. Suitable for use with either separate VHF and UHF antennas, or a single combination antenna. It also features separate adjustable gain on VHF and UHF for optimum signal. Supplied with full installation manual, mounting hardware and power supply. Waterproof housing and fully shielded.

- Heavy duty clamping system
- Suitable for bands 1-5
- Regulated power supply
- Switchable input selection
- Posistor protected
- F-type connectors
- Adjustable inter-stage gain on UHF & VHF
- UHF gain: 10 - 30dB / VHF gain: 5 - 25dB
- Fully shielded
- AC power adaptor with F-type connection included
- Dimensions: 112(W) x 108(H) x 35(D)mm
- HDTV Compliant

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3270	$64.95	$58.50	$51.95

MASTHEAD AMPLIFIERS FOR DIGITAL TV

Featuring the same quality Australian design and performance that has become synonymous with the Kingray brand, this new "KM Series" of masthead amplifiers brings you clear Digital (and analogue) TV reception for a more affordable price than previous models. A completely revised PCB design with advanced surface mount technology has allowed these new models to pack all the same performance and features into a much smaller package. Each unit features a shielded case, weather resistant UV stabilised outdoor plastic housing, adjustable gain controls, combined or separate antenna inputs (allowing either a combination VHF/UHF or separate VHF and UHF antenna inputs), and F-type connections. Two models available, with instructions and power supply included.

Kingray SAM224FS 4 Output Masthead Amplifier

Australian design and high quality SMD construction leads to exception performance from this 4-output masthead amplifier from Kingray. Accepts a single "mixed" antenna input, and provides four amplified outputs for you to run to each wall point in your home. All connections are F-type to ensure best signal quality, and the circuit board is housed in a metal case to shield against noise. Includes power supply.

- Wide input range to suit all analogue and digital TV signals
- 4 individual amplified outputs
- Suitable for combined VHF/UHF antenna input
- Replacement power supply LT-3256

Kingray

Specifications	
Frequency range	44 - 860 MHz
Max gain	VHF 12dB, UHF 16dB
Gain control	11 - 14dB tilt
Noise figure	<3.5dB
Max output	100dBuV DIN45004B / -60dB IMR
Supply voltage	14VDC 70mA
Dimensions	105(W) x 90(H) x 35(D)mm

3 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3253	$79.95	$71.95	$63.95

Kingray VHF/UHF Masthead Amp with LTE/4G Filters

NEW 2013

As you may be aware by now, a large chunk of the Australian TV broadcast spectrum is being reallocated for the next generation 4G/LTE mobile phone service. This is currently due to happen at the end of 2013, and early reports are suggesting that this reallocation of the spectrum may interfere with existing TV reception apparatus. To guard against this, Kingray have produced this Australian made masthead amp that provides a good VHF & UHF TV band gain, and user selectable filters for VHF bands 1&2, FM radio, fixed pagers, and the new 4G/LTE band.

- Supplied with AC power injector and F-type to PAL adaptors.
- Combination and separate VHF & UHF Antenna inputs

Kingray

Specifications	
Frequency range	VHF 44-230MHZ, UHF 520-860MHz
Gain	VHF 22-26dB, UHF 35dB
Gain control	VHF 16-12dB, UHF 15dB
Noise figure	VHF 3.5dB, UHF 2.1dB
Selectable filters	FM, LTE, VHF band 1 & 2, fixed pagers
Suitable power supplies	LT-3256, LT-3258 or LT-3259

MADE IN AUSTRALIA

3 YEAR WARRANTY

A fantastic product proudly made in Australia.

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3251	$99.95	$89.95	$79.95

12V Masthead Amp Power Injector

NEW 2013

An easy solution to powering a masthead amp on a caravan, RV, camper trailer etc. It plugs into a cigarette lighter/12V power socket and feeds power for a masthead amplifier. Simply connect between the antenna down lead and your set top box. F-type connections fitted.

- Suitable with LT-3251 VHF/UHF masthead amplifier
- Ideal for Caravans and RV's

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 5+
	LT-3259	$34.95	$31.45	$27.90

TV Antenna Accessories

Replacement Power Supplies for Masthead Amplifiers

F-socket power injector.
- 14VDC@150mA - Cat LT-3256/LT-3251
- 17.5VAC@100mA - Cat LT-3258
- Connection: F-59

Kingray

TECH TIP! NEW & IMPROVED

3 YEAR WARRANTY

LT-3256

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3258	$23.95	$21.35	$18.95
LT-3256	$23.95	$21.35	$18.95

ATTENUATORS

Fixed Attenuators

Fixed attenuators are a handy way to resolve ghosting and reflections caused by too high a signal strength in RF or Video signals. BNC or F-Type fixed attenuators will address these problems.

- Made from solid brass body with nickel plating
- Bandwidth: 5MHz to 1GHz
- All are inline (male to female) and DC Blocking (DC Blocking Module also available - LT-3070)

1 YEAR WARRANTY

	Atten.	Cat.	Qty 1+	Qty 2+	Qty 5+
BNC	3dB	LT-3053	$9.95	$8.75	$7.75
BNC	6dB	LT-3055	$9.95	$8.75	$7.75
BNC	12dB	LT-3057	$9.95	$8.75	$7.75
F Type	3dB	LT-3052	$9.95	$8.75	$7.75
F Type	6dB	LT-3054	$9.95	$8.75	$7.75
F Type	12dB	LT-3056	$9.95	$8.75	$7.75
DC Blocking Module		LT-3070	$19.95	$17.70	$15.70

Variable Attenuator

May reduce ghosting in some cases. In certain situations you can actually receive too much TV signal. This attenuator (signal reducer) plugs in line and has a variable control. Supplied with two F sockets, maximum attenuation is 20dB.

TECH TIP! WITH F SOCKETS

NEW LOWER PRICE

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3050	$9.95	$8.75	$7.75

FILTER

Bandpass Filter, 4G Mobile Phone Services

NEW 2013

As advised elsewhere, a large part of the TV spectrum in Australia is being reallocated to mobile phone services (for LTE Technology). This means that future mobile phone services may interfere with your TV reception. You can eliminate this problem by inserting this filter into the antenna input line of your TV.

- 'F' type in, "F' type out.
- No power supply required
- <2dB insertion loss
- LTE rejection: 25dB @ 750MHz
- Pass band: 5-694MHZ
- Dimensions: 47(L) x 21(Dia.)mm

Cat.	Qty 1+	Qty 3+	Qty 5+
LT-3061	$24.95	$22.35	$19.70

RF MODULATORS

RF Modulator for Audio Video

This modulator converts a video and audio signal to an RF antenna type signal to connect directly into a TV which has a PAL RF socket.

- Channel 0 and 1.
- Requires 12VDC @ 100mA
- Use our plugpack MP-3147
- Suitable stereo for Home Theatre

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 2+	Qty 5+
Stereo	LM-3873	$19.95	$17.70	$15.70

Audio Video RF Modulator with Display

Older TVs don't have an audio/video input which makes them pretty useless for watching DVDs or playing back your Camcorder or digital camera images. This handy device overcomes this problem and lets you press an older TV back into useful service. The modulator takes the A/V output from your DVD etc, and converts it into to a standard UHF TV channel frequency for connection to the TV's antenna input. The TV channel is selectable and is displayed on the modulator's front panel. The modulator is supplied with a 750mm stereo/mono adaptor cable and plug pack power supply.

NEW LOWER PRICE

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
LM-3878	$49.95	$44.90	$42.45

AV/RF Modulator - Stereo

Many older TVs don't have AV inputs, making connection of modern AV sources a no-go. You can alleviate that problem with this nifty RF modulator: it takes a composite video or S-video AV signal and converts it into an RF signal down the antenna line so that your TV just tunes into the signal as if it were a broadcast TV station. Also very handy for piping AV signals around the home on existing TV antenna cabling, allowing you to view an AV source in multiple rooms around the house without the need to lay new cabling. You can even select which channel to modulate the AV signal into, to avoid interference with any existing signals on your TV antenna line. Modulates signals into the UHF range.

- Mains plugpack included.

NEW LOWER PRICE

Cat.	Qty 1+	Qty 4+	Qty 10+
LM-3879	$69.95	$62.95	$55.95

BALUNS

Outdoor Baluns

Essential for matching 300Ω antennas, TVs and ribbon with 75Ω coaxial and TV connections

ANTENNA MOUNT - 75 Ohm

Mounts on TV antenna. Used to connect 75Ω coax to TV aerial that does not already have a balun. Simple screw terminal connections. Weatherproof and long lasting.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3026	$4.95	$4.45	$3.90

300 Ohm TO 75 Ohm - 'F' TYPE

Mounts on antenna. Converts natural 300Ω impedance of an antenna to 75Ω for coax. 'F' type female output. Eliminates saddle clamp termination. Requires F plug.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3028	$4.95	$4.45	$3.90

Indoor Baluns

75 Ohm TO 300 Ohm

75Ω socket for input and 300Ω ribbon cable output. Allows connection of any 75Ω output (video, TV games etc) to a TV with an older style 300Ω input.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3022	$4.50	$3.95	$3.60

ANTENNA HARDWARE

VERTICAL STANDOFF BOOM FOR DUAL POLARITY ANTENNA

This is attached to a mast section to allow dual polarity antenna to be mounted vertically which is required in some areas. It reduces interference between the VHF elements & the mast section.

- 481mm to standoff around 381mm
- Galvanised steel construction

LT-3149

BARGEBOARD ANTENNA MOUNT - HOCKEY STICK

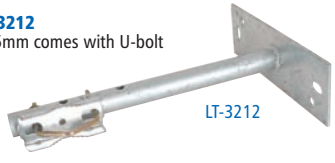
Simply bolts onto bargeboard (below gutter) or other support. 1800mm long, galvanised steel construction.

- Mounting plate: 215 x 65mm

LT-3200

LT-3212

305mm comes with U-bolt



LT-3212

LT-3220

590mm no U-bolt

LT-3220

MAST SECTION

2.4 metres long galvanised steel mast.

LT-3230

U-CLAMP/V-BLOCK

For securely clamping mast sections, mounts, etc., at right angles.

1 YEAR WARRANTY

LT-3235

Cat.	Qty 1+	Qty 4+	Qty 10+
LT-3149	$15.95	$14.35	$12.70
LT-3200	$27.95	$24.95	$22.35
LT-3212	$19.95	$17.70	$15.70
LT-3220	$19.95	$17.70	$15.70
LT-3230	$29.95	$26.90	$23.70
LT-3235	$4.50	$3.95	$3.60

SPLITTERS

Indoor Splitter - 2 Way

Allows you to connect two TV, video, games, FM receivers etc to one RF plug, so you can run multiple devices on one outlet.

- Takes standard PAL RF connectors.
- 2 x female sockets to male plug.

	Cat.	Qty 1+	Qty 2+	Qty 5+
2 Way	LT-3020	$5.95	$5.25	$4.75

F Connector Die Cast Metal Case TV Splitters

These splitters are sealed in a metal case with a mounting bracket. They are suitable from 5 - 900MHz, VHF, UHF TV and FM radio.

- Requires F type plugs - see plugs and sockets section for these.
- Supplied with mounting screws

They have power pass for masthead amps on all ports. Low VSWR (Voltage Standing Wave Ratio).

	Cat.	Qty 1+	Qty 2+	Qty 5+
2 Way	LT-3044	$7.95	$6.95	$6.25
4 Way	LT-3045	$9.95	$8.75	$7.75

4 Way Hardwired Splitter

Essential for operating more than one set from a single antenna - don't try wiring them without one - it doesn't work very well.

- Screw terminals

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3012	$8.95	$7.95	$6.95

Single Power Pass

These have power pass on the input to one output. This is to allow voltage up through the splitter to power a masthead amplifier or satellite dish LNA. These allow the voltage on one port only, so if anything goes wrong, all ports are not affected by low frequency shorts.

TECH TIP!
Low VSWR for Digital Performance

DIGITAL READY

	Cat.	Qty 1+	Qty 2+	Qty 5+
2 Way	LT-3046	$12.95	$11.35	$10.35
4 Way	LT-3047	$17.95	$15.95	$14.35

DC Blocking Module

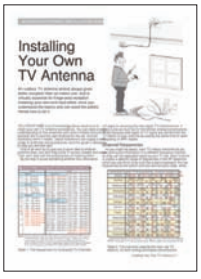
DC Blocking modules stop the DC voltages from powered RF amplifiers travelling into TV sets or other devices. It is a low cost protection against voltages which can damage expensive TV sets or equipment. Made from a solid brass body with nickel plating.

- Bandwidth: 5MHz to 1GHz.
- 22-gauge spring steel centre pin.
- Inline design (socket to plug).

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3070	$19.95	$17.70	$15.70

Installing Your Own TV Antenna Booklet

Antennas play an important part in achieving the best picture for your TV set and are especially important for fringe area reception. This guide explains antenna basics and how to install them. Once you understand the basics you will be able to improve your reception and avoid common pitfalls. The guide includes information on current analogue frequencies and the new digital channels.



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BOOK AVAILABLE

Cat.	Qty 1+
BI-8210	$2.00

WALLPLATES & ACCESSORIES

Large Blank Wallplate

This is a standard power point size white blank wallplate. Size 72 x 115mm. Ideal for many uses, including mounting TV antenna sockets, audio sockets, speaker terminals, low voltage outlets etc, etc.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3035	$4.95	$4.45	$3.90

Flushmount 75 Ohm TV Wall Socket with F59 Connection

- Standard power point size.
- PAL socket output
- F59 connection at rear
- Mounting screws
- Dimensions: 71(W) x 115(H)mm

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3065	$6.50	$5.75	$4.95

PAL 2 Socket Wallplate - TV & FM

Standard power point size. Has two PAL sockets, one for TV and one for FM. Simply run one cable in from antenna.

- F59 rear connection
- Mounting screws included
- Dimensions: 115(H) x 71(W)mm

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3066	$9.95	$8.75	$7.75

Wallplate - Mini

Architrave type standard white wall plate with a cutout for the 75Ω snap-in insert shown below.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3030	$2.95	$2.60	$2.30

75 Ohm Insert

Clips into the mini wall plate shown above.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3031	$3.50	$3.15	$2.75

F61 Flushmount Wall Socket

Standard power point size.

- Accepts F59 plug both sides of this fitting.
- 71(W) x115(H)mm.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3040	$5.95	$5.25	$4.75

Metal Mounting Brackets for Large Wallplates

Suitable for plasterboard walls.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3033	$2.95	$2.60	$2.30

Recessed Cable Entry Wallplates

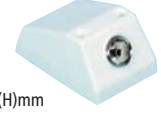
Create a neat cable entry/exit point for terminated or non-terminated audio and video leads. The wallplate design allows cables to be passed through walls with minimal fuss and the inner curved recessed design ensures maximum safety. Mounting screws included.

- Screw thread size: 2.5mm
- Small: 124(W) x 82(H) x 36(D)mm
- Large: 124(W) x 82(H) x 55(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Small	PS-0295	$6.95	$6.25	$5.50
Large	PS-0297	$6.95	$6.25	$5.50

75 Ohm TV Floor Socket with F59 Connection

Designed to mount on the skirting board or floor

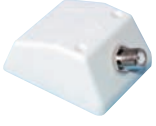


- 75 ohm impedance (standard).
- PAL socket output
- F59 connection at rear
- Mounting screws
- Dimensions: 50(L) x 30(W) x 25(H)mm

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3063	$3.95	$3.45	$3.15

F61 Coax Floor Entry

White in colour.



- Size 58 x 46(base) x 27(H)mm.
- Accepts F59 plug both sides of this fitting.

Cat.	Qty 1+	Qty 2+	Qty 5+
LT-3042	$3.50	$3.15	$2.75

Coax Seal Tape

This versatile material looks like ordinary PVC electrical tape but is actually a handy sealing system

that fuses together to form a removable, waterproof seal once it has been applied. The tape has many uses such as waterproofing outdoor coax connections, sealing low pressure vacuum lines, or even as an alternative to heat shrink tubing when access is difficult.

- 12mm wide x 1.5m long.

Cat.	Qty 1+	Qty 4+	Qty 10+
NM-2828	$12.95	$11.35	$10.35

Satellite KU-Band Universal Single LNBF

LNBF for satellite installations. Suitable for receiving all single and dual polarised Ku-band satellite signals (e.g. C1, Intelsat and Austar).

NEW LOWER PRICE

- Input Freq Range: 10.7 to 12.75GHz
- L.O. Frequency: 9.75/10.6GHz
- L.O. Frequency Stability: +/-2.5MHz
- Output Connector: 75 ohm F socket

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 5+
LS-3320	$29.95	$26.90	$23.70

AV Leads

AUDIO LEAD SELECTION GUIDE

Use	Quality	Connector		to Connector		Length	Cat.	Page
Audio	Best	Stereo 3.5	Plug	RCA x 2	Plug	1.5m	WQ-7206	457
Audio	Best	Stereo 3.5	Plug	RCA x 2	Plug	3.0m	WQ-7208	457
Audio	Best	RCA x 2	Plug	RCA x 2	Plug	1.5m	WQ-7226	457
Audio	Best	RCA x 2	Plug	RCA x 2	Plug	3.0m	WQ-7228	457
Audio	Best	RCA x 2	Plug	RCA x 2	Plug	5.0m	WQ-7230	457
Audio	Best	RCA x 2	Plug	RCA x 2	Plug	10.0m	WQ-7232	457
Audio	Best	XLR 3 PIN	Plug	XLR 3 PIN	Socket	2.0m	WA-7041	455
Audio	Best	XLR 3 PIN	Plug	XLR 3 PIN	Socket	6.0m	WA-7042	455
Audio	Best	XLR 3 PIN	Plug	XLR 3 PIN	Socket	10.0m	WA-7043	455
Audio	Good	DIN 5 Pin	Plug	5 Pin DIN	Plug	1.5m	WA-7000	454
Audio	Good	DIN 5 Pin	Plug	RCA x 4	Plug	1.5m	WA-7002	454
Audio	Good	Stereo 2.5	Plug	Stereo 3.5	Plug	1.5m	WA-7004	454
Audio	Good	Mono 3.5	Plug	Mono 3.5	Plug	1.5m	WA-7006	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Plug	0.5m	WA-7007	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Plug	1.5m	WA-7008	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Plug	3.0m	WA-7009	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Plug	5.0m	WA-7005	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Plug	2.0m Slim	WA-7500	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Socket	3.0m	WA-7006	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Socket	3.0m Curly	WA-7012	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Socket	5.0m	WA-7011	454
Audio	Good	Stereo 3.5	Plug	RCA x 2	Plug	1.5m	WA-7014	454
Audio	Good	Stereo 3.5	Plug	RCA x 2	Plug	3.0m	WA-7015	454
Audio	Good	Stereo 3.5	Plug	RCA x 2	Plug	5.0m	WA-7017	454
Audio	Good	Stereo 3.5	Plug	RCA x 2	Plug	2.0m Slim	WA-7502	454
Audio	Good	Stereo 3.5	Plug	RCA x 2	Socket	300mm	WA-7016	454
Audio	Good	Stereo 3.5	Plug	Stereo 3.5	Socket	2.0m Slim	WA-7504	454

Use	Quality	Connector		to Connector		Length	Cat.	Page
Audio	Good	Mono 6.5	Plug	Mono 6.5	Plug	3.0m	WA-7024	455
Audio	Good	Mono 6.5	Plug	Mono 6.5	Plug	6.0m Curly	WA-7026	455
Audio	Good	Mono 6.5	Plug	Mono 3.5	Socket	5.0m	WA-7030	455
Audio	Good	Mono 6.5	Plug	XLR	Socket	6.0m	WA-7040	455
Audio	Good	Stereo 6.5	Plug	Stereo 6.5	Socket	6.0m Curly	WA-7046	455
Audio	Good	RCA	Plug	RCA	Plug	1.5m	WA-7050	455
Audio	Good	RCA	Plug	RCA x 2	Plug	1.5m	WA-7054	455
Audio	Good	RCA	Plug	RCA x 2	Socket	300mm	WA-7056	455
Audio	Good	RCA x 2	Plug	RCA x 2	Plug	1.5m	WA-7062	455
Audio	Good	RCA x 2	Plug	RCA x 2	Plug	3.0m	WA-7064	455
Audio	Good	RCA x 2	Plug	RCA x 2	Plug	5.0m	WA-7066	455
Audio	Good	RCA x 2	Plug	RCA x 2	Plug	10.0m	WA-7068	455
Audio	Good	RCA x 2	Plug	RCA x 2	Socket	1.5m	WA-7070	455
Audio	Good	RCA x 2	Plug	RCA x 2	Socket	3.0m	WA-7072	455
Audio	Good	RCA x 2	Plug	RCA x 2	Socket	5.0m	WA-7074	455
Audio	Good	RCA x 4	Plug	RCA x 4	Plug	1.5m	WA-7078	455
Audio	Good	RCA x 4	Plug	RCA x 4	Plug	5.0m	WA-7080	455
Audio	Good	RCA	Plug	RCA	Socket	3.0m	WA-7084	455
Audio	Good	RCA	Plug	Mono 3.5	Plug	1.5m	WA-7088	455
Audio	Good	RCA x 2	Piggyback	RCA x 2	Plug	1.5m	WA-7090	455
Audio	Good	RCA x 2	Piggyback	RCA x 2	Plug	3.0m	WA-7091	455
Audio	Good	RCA x 2	Piggyback	RCA x 2	Plug	5.0m	WA-7092	455
Audio	Good	RCA	Socket	RCA x 2	Plug	300mm	WA-7058	455
Audio	Good	Speakon	Plug	Speakon	Plug	5m	WA-7100	455
Audio	Good	Speakon	Plug	Speakon	Plug	10m	WA-7102	455
Audio	Good	Speakon	Plug	Speakon	Plug	15m	WA-7104	455
Audio	Good	Speakon	Plug	Speakon	Plug	20m	WA-7110	455
Audio	Good	XLR	Plug	XLR	Socket	6.0m	WQ-7292	455

AUDIO LEADS

Audio leads shown on this page are packaged in handy hanging storage blister display packs except where stated.

5 PIN DIN PLUG TO 5 PIN DIN PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7000	$6.95	$6.25	$5.50

5 PIN DIN PLUG TO 4 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7002	$8.95	$7.95	$6.95

3.5mm MONO PLUG TO 3.5mm MONO PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7006	$4.95	$4.45	$3.90

2.5mm STEREO PLUG TO 3.5mm STEREO PLUG

General purpose audio lead 2.5mm stereo plug - 3.5mm stereo plug. 1.5m long.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7004	$4.95	$4.45	$3.90

3.5mm STEREO PLUG TO 3.5mm STEREO PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WA-7007	$4.50	$3.95	$3.60
1.5m	WA-7008	$4.95	$4.45	$3.90
3.0m	WA-7009	$8.50	$7.50	$6.75
5.0m	WA-7005	$9.95	$8.75	$7.75

Slim 3.5mm Stereo Leads

NEW 2013

Slim design plugs ideal for use with Smartphones, MP3 players, and other small devices where bulky connectors are a hindrance.

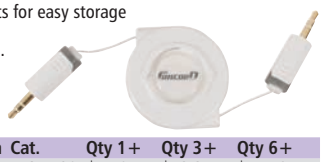
SLIM 3.5MM STEREO PLUG TO 3.5MM STEREO PLUG LEAD - 2M

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WA-7500	$9.95	$8.75	$7.75

RETRACTABLE LEAD 3.5mm PLUG TO 3.5mm PLUG

Cable retracts for easy storage

- 1.0m long.



Length	Cat.	Qty 1+	Qty 3+	Qty 6+
1.0m	WC-7732	$14.95	$13.35	$11.70

3.5mm STEREO PLUG TO 3.5mm STEREO SOCKET

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WA-7010	$6.95	$6.25	$5.50
Curly3.0m	WA-7012	$8.50	$7.50	$6.75
5.0m	WA-7011	$9.95	$8.75	$7.75

SLIM 3.5MM STEREO PLUG TO 2 X 3.5MM STEREO SOCKET - 2M

NEW 2013

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WA-7504	$9.95	$8.75	$7.75

3.5mm STEREO PLUG TO 2 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7014	$6.50	$5.75	$4.95
3.0m	WA-7015	$8.95	$7.95	$6.95
5.0m	WA-7017	$9.95	$8.75	$7.75

SLIM 3.5MM STEREO PLUG TO 2 X RCA PLUG LEAD - 2M

NEW 2013

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WA-7502	$12.95	$11.35	$10.35

3.5mm STEREO PLUG TO 2 X RCA SOCKETS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WA-7016	$5.50	$4.90	$4.30

3.5mm STEREO SOCKET TO 2 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WA-7018	$5.50	$4.90	$4.30

AUDIO LEADS (CONTINUED)

6.5mm MONO PLUG TO 6.5mm MONO R/A PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WA-7024	$6.95	$6.25	$5.50

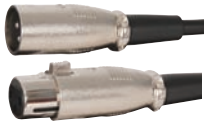
6.5mm MONO PLUG TO 6.5mm MONO SOCKET

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
5.0m	WA-7030	$8.95	$7.95	$6.95

6.5mm MONO PLUG TO 3 PIN XLR SOCKET

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
6.0m	WA-7040	$19.95	$17.70	$15.70

3 PIN XLR TYPE PLUG TO 3 PIN XLR SOCKET



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WA-7041	$11.95	$10.70	$9.50
6.0m	WA-7042	$19.95	$17.70	$15.70
10.0m	WA-7043	$23.95	$21.35	$18.95

RCA PLUG TO RCA PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7050	$5.95	$5.25	$4.75

RCA PLUG TO 2 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7054	$5.95	$5.25	$4.75

2 X RCA PLUGS TO 2 X RCA SOCKETS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7070	$6.50	$5.75	$4.95
3.0m	WA-7072	$9.50	$8.50	$7.50
5.0m	WA-7074	$11.95	$10.70	$9.50

RCA PLUG TO 2 X RCA SOCKETS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WA-7056	$4.95	$4.45	$3.90

1 X RCA SOCKET TO 2 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WA-7058	$4.95	$4.45	$3.90

2 X RCA PLUGS TO 2 X RCA PLUGS

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7062	$6.95	$6.25	$5.50
3.0m	WA-7064	$8.95	$7.95	$6.95
5.0m	WA-7066	$10.95	$9.75	$8.75
10.0m	WA-7068	$13.95	$12.35	$10.95

PIGGYBACK 2 X RCA TO RCA LEAD

Piggyback 2 x RCA to RCA audio lead 1.5m

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7090	$9.50	$8.50	$7.50
3.0m	WA-7091	$11.95	$10.70	$9.50
5.0m	WA-7092	$13.95	$12.35	$10.95
10.0m	WA-7093	$22.50	$19.95	$17.95

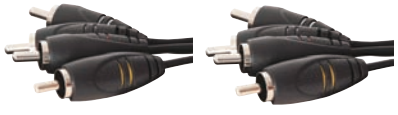
RCA PLUG TO RCA SOCKET

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WA-7084	$6.50	$5.75	$4.95

RCA PLUG TO 3.5mm PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7088	$4.95	$4.45	$3.90

4 X RCA PLUGS TO 4 X RCA PLUGS



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WA-7078	$8.50	$7.50	$6.75
5.0m	WA-7080	$14.95	$13.35	$11.70

SPEAKON AUDIO LEADS

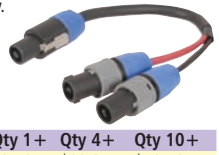
Speakon connectors are the standard for speaker conections in PA and sound reinforcement applications, and if you're building or installing a system they're the only way to go. You could buy the cable and connectors and put them together, or buy these excellent ready-made cables.

	Cat.	Qty 1+	Qty 4+	Qty 10+
5.0m	WA-7100	$24.95	$22.35	$19.70
10.0m	WA-7102	$34.95	$31.45	$27.90
15.0m	WA-7104	$69.95	$62.95	$55.95
20.0m	WA-7106	$99.00	$88.95	$78.95

SPEAKON LEAD SPLITTER 2 WAY

An adaptor that will split your stereo 4 core Speakon cable run to 2 x 2 pole left and right channels. A solution that cuts down on cable runs and costs dramatically.

- 1 x 4 pole Speakon plug to 2 x 2 pole Speakon plugs.
- Length 300mm.



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
300mm	WA-7109	$24.95	$22.35	$19.70

6.5MM MONO TO SPEAKON CABLE - 3M

Stage quality 6.5mm mono to Speakon cable for connecting small PA systems. 3m, super flexi cable.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WA-7108	$16.95	$14.95	$13.35

SPEAKON LEAD EXTENDER

Connects Speakon leads together to extend cable runs as far as you need to. ABS construction.

Cat.	Qty 1+	Qty 10+	Qty 50+
PA-3689	$12.95	$11.35	$10.35

2 X BANANA PLUG TO 2 X BANANA PLUG

Heavy duty figure-8 speaker cable with transparent PVC jacket. Gold-plated screwlock banana plugs. Red & black plug IDs.

- 5.0m

Cat.	Qty 1+	Qty 4+	Qty 10+
WA-7110	$24.95	$22.35	$19.70

INSTRUMENT LEADS

CURLY INSTRUMENT EXTENSION LEAD 6.5 STEREO PLUG TO 6.5 STEREO SOCKET 6M

Curly Instrument Extension Lead 6.5 Stereo Plug to 6.5 Stereo Socket 6m

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
6.0m	WA-7046	$9.50	$8.50	$7.50

CURLY INSTRUMENT LEAD 6.5 MONO PLUG TO 6.5 MONO PLUG 6M

6.5 - 6.5mm mono plug to plug curly cord instrument lead. Suitable for all musical instrument applications. Extends to 6 metres.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
6.0m	WA-7026	$11.95	$10.70	$9.50

AMPHENOL INSTRUCTION CABLE 6 METRE

Suitable for guitar, bass or keyboard applications. Terminated with pro quality strain-relieved Amphenol 6.5mm plugs, 180 degree one end, right angle on the other.

- Gold plated.

Amphenol

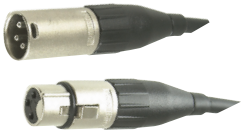
Length	Cat.	Qty 1+	Qty 4+	Qty 10+
6.0m	WQ-7290	$34.95	$31.45	$27.90

AMPHENOL BALANCED MICROPHONE CABLE

Professional quality mic cable terminated with strain-relieved Amphenol connectors.

- XLR male to XLR female.

Amphenol



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
6.0m	WQ-7292	$44.95	$40.45	$35.90

SIGHT & SOUND

AV Leads

VIDEO LEAD SELECTION GUIDE

Use	Quality	Connector		to Connector		Length	Cat.	Page
Video	Best	Coaxial	Plug	Coaxial	Plug	1.5m	WQ-7200	457
Video	Best	Coaxial	Plug	Coaxial	Socket	1.5m	WQ-7202	457
Video	Best	S-Video	Plug	S-Video	Plug	1.5m	WQ-7214	457
Video	Best	S-Video	Plug	S-Video	Plug	3.0m	WQ-7216	457
Video	Best	S-Video	Plug	S-Video	Plug	5.0m	WQ-7217	457
Video	Best	S-Video	Plug	S-Video	Plug	10.0m	WQ-7220	457
Video	Best	RCA	Plug	RCA	Plug	0.5m	WQ-7221	457
Video	Best	RCA	Plug	RCA	Plug	1.5m	WQ-7222	457
Video	Best	RCA	Plug	RCA	Plug	3.0m	WQ-7223	457
Video	Best	RCA	Plug	RCA	Plug	5.0m	WQ-7224	457
Video	Best	RCA	Plug	RCA	Plug	10.0m	WQ-7225	457
Video	Best	RCA x 2	Plug	RCA	Plug	0.5m	WQ-7227	457
Video	Best	RCA x 3	Plug	RCA x 3	Plug	1.5m	WQ-7238	457
Video	Best	RCA x 3	Plug	RCA x 3	Plug	0.5m	WQ-7239	457
Video	Best	RCA x 3	Plug	RCA x 3	Plug	3.0m	WQ-7240	457
Video	Best	RCA x 3	Plug	RCA x 3	Plug	5.0m	WQ-7250	457
Video	Best	RCA x 3	Plug	RCA x 3	Plug	10.0m	WQ-7252	457
Video	Best	D15HD	Plug	D15HD	Plug	10.0m	WQ-7258	409
Video	Best	D15HD	Plug	RCA x 3	Plug	1.5m	WQ-7259	457
Video	Good	HDMI	Plug	HDMI	Plug	1.5m	WV-7915	459
Video	Good	HDMI	Plug	HDMI	Plug	3.0m	WV-7916	459
Video	Good	HDMI	Plug	HDMI	Plug	5.0m	WV-7917	459
Video	Best	HDMI	Plug	HDMI	Plug	0.5m	WV-7914	459
Video	Best	HDMI	Plug	HDMI	Plug	1.5m	WQ-7906	459
Video	Best	HDMI	Plug	HDMI	Plug	5.0m	WQ-7902	459
Video	Best	HDMI	Plug	HDMI	Plug	5.0m	WQ-7904	459

Use	Quality	Connector		to Connector		Length	Cat.	Page
Video	Best	HDMI	Plug	HDMI	Plug	10.0m	WQ-7905	459
Video	Best	HDMI Swivel	Plug	HDMI Swivel	Plug	1.5m	WQ-7401	459
Video	Best	Display Port	Plug	HDMI	Socket	0.15m	WQ-7412	459
Video	Best	Display Port	Plug	HDMI	Socket	0.15m	WQ-7423	459
Video	Best	D15HD	Plug	D15HD	Plug	5.0m	WC-7588	409
Video	Best	SMA	Plug	SMA	Plug	1.0m	WC-7800	458
Video	Best	SMA	Plug	SMA	Plug	3.0m	WC-7802	458
Video	Best	SMA	Plug	SMA	Plug	5.0m	WC-7804	458
Video	Best	FME	Plug	FME	Socket	5m	WC-7820	458
Video	Best	F Plug	Plug	F Plug	Plug	1.5m	WV-7390	456
Video	Best	F Plug	Plug	F Plug	Plug	3.0m	WV-7392	456
Video	Best	F Plug	Plug	F Plug	Plug	5.0m	WV-7394	456
Video	Best	F Plug	Plug	F Plug	Plug	10.0m	WV-7396	456
Video	Good	BNC	Plug	BNC	Plug	1.5m	WV-7300	456
Video	Good	RCA	Plug	RCA	Plug	1.5m	WV-7304	456
Video	Good	RCA	Plug	RCA	Plug	3.0m	WV-7306	456
Video	Good	BNC	Plug	RCA	Plug	1.5m	WV-7308	456
Video	Good	RCA	Plug	Coaxial	Plug	1.5m	WV-7312	456
Video	Good	S-Video	Plug	S-Video	Plug	1.5m	WV-7330	456
Video	Good	S-Video	Plug	S-Video	Plug	3.0m	WV-7332	456
Video	Good	S-Video	Plug	S-Video	Plug	5.0m	WV-7334	456
Video	Good	S-Video	Plug	S-Video	Plug	10.0m	WV-7336	456
Video	Good	Coaxial	Plug	F Plug	Plug	1.5m	WV-7384	456
Video	Good	Coaxial	Plug	F Plug	Plug	3.0m	WV-7385	456
Video	Good	F Plug	Plug	F Plug	Plug	1.5m	WV-7386	456

RELATED PRODUCT...

Roadies Cable Tester see page 27

VIDEO LEADS

3 X RCA PLUGS TO 3 X RCA PLUGS

Low capacitance AV connecting cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7316	$8.95	$7.95	$6.95
3.0m	WV-7318	$12.50	$10.95	$9.95
5.0m	WV-7320	$14.95	$13.35	$11.70
10.0m	WV-7321	$24.95	$22.35	$19.70

3.5mm 4 CONTACT PLUG TO 3 X RCA PLUGS

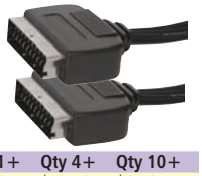
Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7345	$11.95	$10.70	$9.50

S-VIDEO 4 PIN MINI DIN PLUG TO S-VIDEO 4 PIN MINI DIN PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7330	$9.95	$8.75	$7.75
3.0m	WV-7332	$12.95	$11.35	$10.35
5.0m	WV-7334	$14.95	$13.35	$11.70
10.0m	WV-7336	$24.95	$22.35	$19.70

SCART PLUG TO SCART PLUG

Standard 21 pin SCART AV Cable (all 21 pins wired)



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7338	$11.95	$10.70	$9.50

SCART PLUG TO 6 X RCA PLUGS

6 core SCART AV connecting cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7342	$11.95	$10.70	$9.50

3 RCA PIGGYBACK PLUGS TO 3 X RCA PLUGS

With these leads, you can connect 2 outputs from one set of RCA sockets. A lot cheaper than buying double adaptors.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7324	$13.95	$12.35	$10.95
3.0m	WV-7325	$15.95	$14.35	$12.70
5.0m	WV-7326	$19.95	$17.70	$15.70

BNC PLUG TO BNC PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7300	$9.50	$8.50	$7.50

RCA PLUG TO RCA PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7304	$6.95	$6.25	$5.50
3.0m	WV-7306	$7.95	$6.95	$6.25

RCA PLUG TO BNC PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7308	$7.95	$6.95	$6.25

RCA PLUG TO TV COAXIAL PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7312	$5.95	$5.25	$4.75

F PLUG TO TV COAXIAL PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7384	$4.95	$4.45	$3.90
5.0m	WV-7385	$9.95	$8.75	$7.75

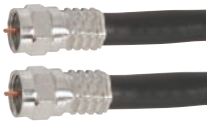
F PLUG TO F PLUG

RG-59U coaxial cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7386	$8.95	$7.95	$6.95

HIGH QUALITY F PLUG TO F PLUG

RG-6 Quad screened, hex crimp coaxial cable



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7390	$5.95	$5.25	$4.75
3.0m	WV-7392	$10.95	$9.75	$8.75
5.0m	WV-7394	$14.95	$13.35	$11.70
10.0m	WV-7396	$24.95	$22.35	$19.70

HIGH QUALITY AV LEADS

A premium range of audio video cables at the right price. These are high performance non-migration interconnection cables utilising 99.96% pure OFC.

CONCORD

- 24 carat hard gold plated contacts
- 100% shielded metal bodied plugs with positive finger grip & moulded cable strain relief.
- Video cable covered in soft & flexible matt or matte blue jacket
- Recommended for digital or analogue signals
- For home theatre systems, Hi-Fi systems, video/camcorder/ TV/VCR/editing suites, DVD, satellite and any application which deserves the absolute best in AV performance
- Clean and clear image reproduction
- Attractively packaged
- Will stand up to the quality of units that sell up to 4-5 times more elsewhere (apart from the expensive packaging!)

AV LEAD Selection Guide

Use	Quality	Connector		to Connector		Length	Cat.	Page
AV	Best	RCA x 3	Plug	RCA x 3	Plug	1.5m	WQ-7234	457
AV	Best	RCA x 3	Plug	RCA x 3	Plug	10.0m	WQ-7235	457
AV	Best	RCA x 3	Plug	RCA x 3	Plug	3.0m	WQ-7236	457
AV	Best	RCA x 3	Plug	RCA x 3	Plug	5.0m	WQ-7237	457
AV	Best	S-Vid	Plug	RCA	Plug	1.5m	WQ-7253	457
AV	Good	RCA x 3	Plug	RCA x 3	Plug	1.5m	WV-7316	456
AV	Good	RCA x 3	Plug	RCA x 3	Plug	3.0m	WV-7318	456
AV	Good	RCA x 3	Plug	RCA x 3	Plug	5.0m	WV-7320	456
AV	Good	RCA x 3	Plug	RCA x 3	Plug	10.0m	WV-7321	456
AV	Good	Scart	Plug	Scart	Plug	1.5m	WV-7338	456
AV	Good	Scart	Plug	RCA x 6	Plug	1.5m	WV-7342	456
AV	Good	3.5 (4 pole)	Plug	RCA x 3	Plug	1.5m	WV-7345	456
AV	Good	RCA x 3	Piggyback	RCA x 3	Plug	1.5m	WV-7324	456
AV	Good	RCA x 3	Piggyback	RCA x 3	Plug	3.0m	WV-7325	456
AV	Good	RCA x 3	Piggyback	RCA x 3	Plug	5.0m	WV-7326	456

3.5mm STEREO PLUG TO 2 X RCA PLUGS

Stereo parallel cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7206	$17.95	$15.95	$14.35
3.0m	WQ-7208	$18.95	$16.95	$14.95

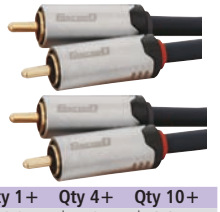
RCA PLUG TO RCA PLUG

Video coaxial cable.
RG594 75Ω.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WQ-7221	$10.95	$9.75	$8.75
1.5m	WQ-7222	$11.95	$10.70	$9.50
3.0m	WQ-7223	$14.95	$13.35	$11.70
5.0m	WQ-7224	$17.95	$15.95	$14.35
10.0m	WQ-7225	$23.95	$21.35	$18.95

2 X RCA PLUGS TO 2 X RCA PLUGS

Stereo parallel cable



Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WQ-7227	$16.95	$14.95	$13.35
1.5m	WQ-7226	$18.95	$16.95	$14.95
3.0m	WQ-7228	$24.95	$22.35	$19.70
5.0m	WQ-7230	$29.95	$26.90	$23.70
10.0m	WQ-7232	$49.95	$44.90	$39.90

S-VIDEO 4 PIN MINI DIN PLUG TO PLUG

S-Video cable

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7214	$18.95	$16.95	$14.95
3.0m	WQ-7216	$22.95	$20.35	$18.35
5.0m	WQ-7217	$27.95	$24.95	$22.35
10.0m	WQ-7220	$34.95	$31.45	$27.90

75 OHM TV COAXIAL PLUG TO 75 OHM TV COAXIAL PLUG

RG59U coaxial cable.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7200	$14.95	$13.35	$11.70

75 OHM TV COAXIAL PLUG TO 75 OHM TV COAXIAL SOCKET

RG59U coaxial cable.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7202	$14.95	$13.35	$11.70

3 X RCA PLUGS TO 3 X RCA PLUGS

AV parallel cable.
Coloured cable ID.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7234	$34.95	$31.45	$27.90
3.0m	WQ-7236	$44.95	$40.45	$35.90
5.0m	WQ-7237	$49.95	$44.90	$39.90
10.0m	WQ-7235	$59.95	$53.95	$47.90

RGB COMPONENT VIDEO 3 X RCA PLUGS TO 3 X RCA PLUGS

AV parallel cable. Colour coded plugs.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WQ-7239	$29.95	$26.90	$23.70
1.5m	WQ-7238	$34.95	$31.45	$27.90
3.0m	WQ-7240	$44.95	$40.45	$35.90
5.0m	WQ-7250	$49.95	$44.90	$39.90
10.0m	WQ-7252	$59.95	$53.95	$47.90

S-VIDEO PLUG TO RCA PLUG

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7253	$22.95	$20.35	$18.35

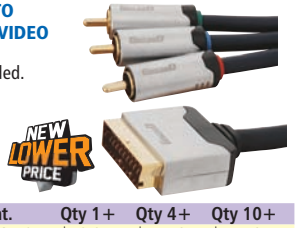
VGA TO 3 X RCA PLUGS RGB

- D15HD male to 3 x RCA plug
- Superior electrical screening

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7259	$32.95	$29.45	$26.45

SCART PLUG TO COMPONENT VIDEO

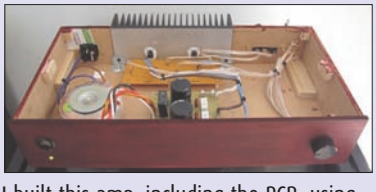
Video cable.
Plugs colour coded.



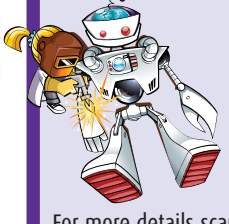
Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7245	$19.95	$17.70	$15.70
5.0m	WQ-7241	$39.95	$35.90	$31.90

2 Channel Stereo Amplifier

Makers Name: Neel Sahdeo
Location: Western Australia



I built this amp, including the PCB, using parts from Jaycar and Bunnings. The PCB kit and connectors, switches and wires , resitors, capacitors, heatsink and soldering iron all came from Jaycar.



For more details scan the QR code or go to www.jaycar.com.au/makers

Want it fast? How about next day delivery? See page 4 for details.

Video & TV Flyleads

Use	Quality	Connector		to Connector		Length	Cat.	Page
Audio	Good	Toslink	Plug	Toslink	Plug	1.0m	WQ-7301	458
Audio	Good	Toslink	Plug	Toslink	Plug	3.0m	WQ-7302	458
Audio	Good	Toslink	Plug	Toslink	Plug	5.0m	WQ-7303	458
Audio	Best	Toslink	Plug	Toslink	Plug	0.5m	WQ-7293	458
Audio	Best	Toslink	Plug	Toslink	Plug	1.0m	WQ-7294	458
Audio	Best	Toslink	Plug	Toslink	Plug	2.0m	WQ-7295	458
Audio	Best	Toslink	Plug	Toslink	Plug	5.0m	WQ-7297	458
Audio	Best	Toslink	Plug	Optical 3.5	Plug	1.0m	WQ-7298	458
Video	Best	DVI-D	Plug	DVI-D	Plug	2.0m	WC-7590	458
Video	Best	DVI-D	Plug	DVI-D	Plug	5.0m	WC-7591	458
Video	Best	DVI-A	Plug	D15HD	Plug	2.0m	WC-7594	458
Video	Good	Coaxial	Plug	Coaxial	Plug	1.5m	WV-7350	458
Video	Good	Coaxial	Plug	Coaxial	Plug	3.0m	WV-7351	458
Video	Good	Coaxial	Plug	Coaxial	Plug	5.0m	WV-7352	458
Video	Good	Coaxial	Plug	Coaxial	Plug	10.0m	WV-7354	458
Video	Good	Coaxial	Plug	Coaxial	Socket	1.5m	WV-7360	458
Video	Good	Coaxial	Plug	Coaxial	Socket	3.0m	WV-7361	458
Video	Good	Coaxial	Plug	Coaxial	Socket	5.0m	WV-7362	458
Video	Good	Coaxial	Plug	Coaxial	Socket	1.5m	WV-7367	458
Gaming	Good	Plug	PS3	DIN + RCA x 3	Plug	1.8m	WV-7434	458
Gaming	Good	Plug	Wii	DIN + RCA x 3	Plug	1.8m	WV-7436	458

DVI CABLES

DVI-D TO DVI-D VIDEO CABLES

- DVI to DVI video cables
- Male to Male
- 24 pin

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7590	$29.95	$26.90	$23.70
5.0m	WC-7591	$44.95	$40.45	$35.90

DVI-A TO VGA VIDEO CABLE

- DVI to 15pin HD VGA

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
2.0m	WC-7594	$24.95	$22.35	$19.70

DVI & HDMI CABLES/ADAPTORS

DVI ADAPTOR

- Female to female
- Compatible with DVI-I single dual link, DVI-single/dual link & DVI-A male
- All pins wired straight through

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-0896	$23.95	$21.35	$18.95

EXTENSION LEAD - FME

FME Low Loss Extension Lead

- Length 5m

1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
5.0m	WC-7820	$34.95	$31.45	$27.90

TV FLYLEADS

75 OHM COAX CABLE MALE TO FEMALE

75 ohm coax cable, male to female. No extension!

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7367	$3.50	$3.15	$2.75

TV COAXIAL PLUG TO TV COAXIAL PLUG

RG-59U coaxial cable. Double shielded cable.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7350	$5.95	$5.25	$4.75
3.0m	WV-7351	$7.95	$6.95	$6.25
5.0m	WV-7352	$9.95	$8.75	$7.75
10.0m	WV-7354	$16.95	$14.95	$13.35

TV COAXIAL PLUG TO SOCKET

RG-59U coaxial cable. Double shielded cable.

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7360	$4.95	$4.45	$3.90
3.0m	WV-7361	$7.50	$6.75	$5.95
5.0m	WV-7362	$8.90	$7.95	$6.95

SMA LEADS

SMA COAXIAL LEADS - FACTORY PRECRIMPED

- SMA plug to plug
- Gold plated connectors
- RG316 high quality coax cable
- Bandwidth up to 2.9GHz

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.0m	WC-7800	$17.95	$15.95	$14.35
3.0m	WC-7802	$29.95	$26.90	$23.70
5.0m	WC-7804	$39.95	$35.90	$31.90

GAME LEADS

PS3®/PS2® S-VIDEO UPGRADE CABLE

- 1.8m

Length	Cat.	Qty 1+
1.8m	WV-7434	$9.95

NINTENDO® WII CONNECTOR TO S-VIDEO PLUS STANDARD COMPOSITE VIDEO & STEREO AUDIO

- 1.2m

Cat.	Qty 1+
WV-7436	$9.95

FIBRE OPTIC LEADS

FIBRE OPTIC TOSLINK AUDIO LEAD

NEW 2013

When a high quality, interference free audio signal is required use Toslink fibre optic cables. Suitable for home theatre audio setups.

- Supports Dolby Digital 5.1 surround sound and DTS

	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WQ-7293	$7.95	$6.95	$6.25
1.0m	WQ-7294	$9.95	$8.75	$7.75
2.0m	WQ-7295	$14.95	$13.35	$11.70
5.0m	WQ-7297	$24.95	$22.35	$19.70

CONCORD FIBRE OPTIC AUDIO LEADS

NEW 2013

A range of fibre optic toslink cables with superb build quality. The tips are gold plated to prevent corrosion so your connections remain solid. Suitable for achieving excellent audio reproduction in home cinemas that support Dolby Digital 5.1 (AC-3) surround sound, DTS, and more.

	Cat.	Qty 1+	Qty 4+	Qty 10+
1.0m	WQ-7301	$14.95	$13.35	$11.70
3.0m	WQ-7302	$24.95	$22.35	$19.70
5.0m	WQ-7303	$39.95	$35.90	$31.90

TOSLINK TO 3.5MM FIBRE OPTIC AUDIO LEAD - 1.0M

NEW 2013

A mini-Toslink to 3.5mm cable for connecting a device with a 3.5mm optical output to an AV receiver with Toslink.

- Gold connectors
- Length: 1.0m

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.0m	WQ-7298	$9.95	$8.75	$7.75

OPTICAL ADAPTORS

TOSLINK ADAPTOR FEMALE / FEMALE

- Enables shorter optical leads to be extended

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-3575	$6.95	$6.25	$5.50

TOSLINK FEMALE TO OPTICAL 3.5mm MALE

Cat.	Qty 1+	Qty 4+	Qty 10+
PA-3574	$5.95	$5.25	$4.75

MONTHLY SPECIALS

Look out for our monthly promotions in store now!

HDMI LEADS

BARGAIN HDMI LEAD - 1.5M

TECH TIP! HDMI STANDARD with ethernet

At this price, you don't have any excuse not to take advantage of HDMI in your AV system. 1.5m, HDMI Standard with Ethernet. What a bargain! Made from 99.99% pure copper, with triple layer shielding & nickel plated connectors. Supports 1080p

- HDMI 1.4 compliant

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7914	$9.95	$8.75	$7.75

ECONOMY HDMI 1.4 LEADS

HDMI leads needn't cost an arm and a leg. If your budget doesn't extend too far, these leads are a cost-effective solution without compromising quality or performance.
All have gold plated connectors and have HDMI 1.4 Standard with Ethernet classification.

TECH TIP! HDMI STANDARD with ethernet

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WV-7915	$19.95	$17.70	$15.70
3.0m	WV-7916	$24.95	$22.35	$19.70
5.0m	WV-7917	$39.95	$35.90	$31.90

CONCORD HIGH QUALITY HDMI 1.4 CABLES

These are our premium HDMI 1.4 High Speed with Ethernet cables. They feature heavily plated 24K gold plated connectors and oxygen-free heavy copper cabling. Each plug is solidly constructed for frequent, reliable use. Also featured are high quality moulded strain-relief cord grommets and a braided sheath to protect against wear. They don't have magical properties, but what you put in one end will come out the other...and that's all you need them to do.

- HDMI High Speed with Ethernet
- Male to male.

CONCORD

TECH TIP! HDMI HIGH SPEED with ethernet

1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
0.5m	WQ-7906	$24.95	$22.35	$19.70
1.5m	WQ-7900	$29.95	$26.90	$23.70
3.0m	WQ-7902	$39.95	$35.90	$31.90
5.0m	WQ-7904	$49.95	$44.90	$39.90
10m	WQ-7905	$79.95	$71.95	$63.95

HDMI LEAD WITH ROTATING PLUGS 1.5M

HDMI cable with a difference - the plug on each end of the cable rotates through 180° to accommodate whatever installation challenge you have.

TECH TIP! HDMI STANDARD

- 1.5m length
- HDMI 1.3 compliant

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7401	$14.95	$13.35	$11.70

AV LEAD HDMI PLUG TO TYPE C HDMI PLUG

Type A plug to Type C or 'Mini' HDMI plugcable for connection to portable HDMI devices.

CONCORD

- Gold plated shield
- 24K gold contacts
- Internal dual strain relief
- Triple shielded
- Nitrogen gas injected dielectric
- RoHS & HDMI v1.3 compliant

TECH TIP! HDMI HIGH SPEED

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
3.0m	WQ-7412	$34.95	$31.45	$27.90

Amplified HDMI Leads

CONCORD

NEW 2013

After about 5 metres HDMI signals tend to degrade. Pixels get missed and you may notice artefacts known as 'sparkles' on your TV when the receiving unit simply can't re-assemble the digital data correctly. These amplified HDMI leads overcome this limitation allowing you much longer HDMI cable runs for home or AV setups in bars, foyers, etc. They accomplish this feat with a built-in equaliser that boost signal strength.

- Powered from the HDMI port
- HDMI High Speed with Ethernet
- HDMI 1.4 Compatible

1 YEAR WARRANTY

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
10m	WQ-7430	$79.95	$71.95	$63.95
15m	WQ-7432	$99.00	$88.95	$78.95
20m	WQ-7434	$129.00	$115.95	$102.95

HDMI Retractable Leads

These HDMI cables retract for taking on-the-go or when put in storage.

- ATC certified
- Pure digital connection
- Ultra fast signal
- Advanced technology connection
- Ethernet channel

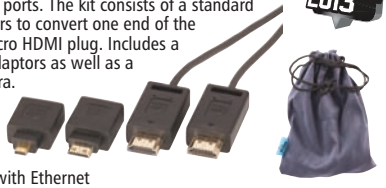
TECH TIP! ALL HDMI HIGH SPEED with ethernet

Type	Length	Cat.	Qty 1+	Qty 4+	Qty 10+
HDMI Plug to HDMI Plug	1.3m	WC-7740	$19.95	$17.70	$15.70

Multimedia HDMI Travel Kit

NEW 2013

An handy HDMI travel kit for connecting Tablets, Smartphones, cameras, or laptops to displays with HDMI ports. The kit consists of a standard 1.2m HDMI lead and two adaptors to convert one end of the lead to either a Mini HDMI or Micro HDMI plug. Includes a travel pouch for your lead and adaptors as well as a pouch for a Smartphone or camera.



- 24K Gold Plated Connectors
- 1.2m HDMI lead
- HDMI 1.4 compatible
- HDMI High Speed (10.2Gbps) with Ethernet
- Mini HDMI Adaptor: Mini HDMI Male (Type A) to HDMI Female (Type A)
- Micro HDMI Adaptor: Micro HDMI Male (Type D) to HDMI Female (Type A)
- Resolution up to 4092 x 2160 pixels
- 48-bit colour and full HD 3D support
- Supports Dolby 7.1

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WC-7746	$24.95	$22.35	$19.70

HDMI ADAPTORS

HDMI Plug to HDMI Socket Swivel Adaptor

Connect HDMI cables where space is an issue such as wall mounted TV's with this adaptor which swivels up to 180º.

- Gold plated connectors

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-3647	$12.95	$11.35	$10.35

Micro HDMI Plug to HDMI Socket Adaptor

Connects your Smart phone, camera or other device with micro HDMI socket to any TV with a HDMI connection.

- Colour: Black
- Gold plated connectors

	Cat.	Qty 1+	Qty 10+	Qty 50+
	PA-3649	$9.95	$8.75	$7.75

HDMI 1.4 TO MICRO D PLUG LEAD 2M

HDMI to Micro D plug with 2m lead.

TECH TIP! ALL HDMI HIGH SPEED with ethernet

1 YEAR WARRANTY

WQ-7911

DISPLAY PORT PLUG TO HDMI SOCKET

WQ-7422

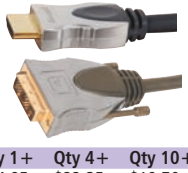
CONVERTER LEAD MINI DVI PLUG TO HDMI SOCKET

WQ-7423

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
150mm	WQ-7422	$29.95	$26.90	$23.70
300mm	WQ-7423	$24.95	$22.35	$19.70
2.0m	WQ-7911	$34.95	$31.45	$27.90

DVI-D TO HDMI CABLE

- HDMI to DVI-D connector



CONCORD

Length	Cat.	Qty 1+	Qty 4+	Qty 10+
1.5m	WQ-7407	$24.95	$22.35	$19.70
3.0m	WQ-7406	$34.95	$31.45	$27.90

HDMI Splitters

HDMI SWITCHES

2 Input HDMI Switcher

The tiny switcher routes high definition video (in multiple resolutions up to 1080p) and digital audio from any one of the two sources to display unit. Two inputs accommodate the simultaneous connection of up to two high definition video sources, such as satellite systems and HD DVD players. Switching is done automatically when signal is present on the ports or manually via the push button switch on the unit.

- Dimensions: 80(L) x 43(W) x 15(H)mm

Note: Cables greater than 5m use an external PSU.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1691	$39.95	$35.90	$31.90

5 Input Remote HDMI Switcher

This stylish design five input HDMI selector routes high definition video and audio signals from the selected input to the HDMI output. The switcher is fully HDCP compliant and comes with an infrared remote control. It has a gain control to compensate for long cable runs. Includes mains adaptor.

- Inputs: 5 x HDMI
- Fully HDMI 1.3 and HDCP compliant
- Size: 155(W) x 70(D) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1693	$69.95	$62.95	$55.95

RELATED PRODUCT...

For an extensive range of HDMI leads see page 459

4 Port HDMI Switcher with S/PDIF or Coaxial Audio Splitter

Get the highest picture and sound quality out of your HDTV. HDMI conveniently integrates both audio and video signals, however it results in less than optimal audio output. This 4 port HDMI switcher will seperate the digital audio signal from the HDMI interface and transmits it to an amplifier by S/PDIF or coaxial (RCA). IR remote included.

- 4 x HDMI inputs, 1 x HDMI output with coax and S/PDIF audio output
- HDMI 1.3b compliant
- HDTV 1080p resolution
- Amplifier bandwidth 2.25Gbps/225MHz
- Dimensions: 155(W) x 70(D) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1625	$79.95	$71.95	$63.95

4 Input HDMI Switcher with Audio Return and Ethernet

This versatile HDMI switcher allows you to expand your HDTV system and connect multiple devices such as game consoles or DVD players to a single HDMI input. With inbuilt HDCP control to minimize switching delay you can rapidly change between the four input signals using the remote control. Separate audio outputs allow you to connect a surround sound amplifier without HDMI while an Audio Return Channel (ARC) decoder enables digital audio output when the television is displaying an internal DVB-T or PVR signal. To complete the unit there is also a HDMI Ethernet connection allowing you to share the network from the HDMI signal to a Media Centre or PVR without the use of an Ethernet switch.

- HDMI 1.4a Compliant
- Supports 3D, HEAC, and CEC
- 4 x HDMI Inputs
- 1 x HDMI Output
- Ethernet Port
- Digital Audio Output: Optical or Coaxial
- Analogue Audio Output: 3.5mm Stereo
- Dimensions: 154(W) x 70(D) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1619	$99.00	$88.95	$78.95

HDMI SPLITTERS

HDMI Splitters with 3D and 4Kx2K Support

Intended for use in the home, office or entertainment venue. These HDMI splitters easily share the latest HD movies, TV shows, music videos, internal/external corporate videos from your Blu-Ray player, HD media player or digital set top box across multiple high definition displays. Feature stunning 3D content and support for the recently announced 4Kx2K resolution. Finally, the splitter's compact size allows it to be easily stored away out of sight leaving you with a clean installation. Choose from a 2 port or 4 port model.

2 PORT HDMI SPLITTER WITH 3D AND 4Kx2K SUPPORT
AC-1700

4 PORT HDMI SPLITTER WITH 3D AND 4Kx2K SUPPORT
AC-1702

Specifications	AC-1700	AC-1702
Inputs	1 x HDMI	1 x HDMI
Outputs	2 x HDMI	4 x HDMI
Supports	HDCP 1.3	HDCP 1.3
Supported audio formats	LPCM, DTS Digital, Dolby Digital (including DTS-HD and Dolby True HD)	LPCM, DTS Digital, Dolby Digital (including DTS-HD and Dolby True HD)
Vertical frequency range	50/60Hz	50/60Hz
Video amplifier bandwidth	3.4Gbps/340MHz per channel	3.4Gbps/340MHz per channel
Supported resolutions	480i, 576i, 1080i, 480p, 576p, 720p, 1080p, 4Kx2K	480i, 576i, 1080i, 480p, 576p, 720p, 1080p, 4Kx2K
Dimension	63(L) x 54(W) x 18(H)mm	154(L) x 69(W) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Port	AC-1700	$69.95	$62.95	$55.95
4 Port	AC-1702	$99.00	$88.95	$78.95

HDMI 4 x 2 Switch Matrix Splitter

Share four HDMI sources between two high definition TVs (HDTV). Essentially, you are able to use all of your high definition sources like Blu-ray, PS3, HD set top boxes etc in your main living room entertainment centre in another HD display in a separate location or room, thus saving you thousands from purchasing HD players all over again! It also reduces cable clutter as well as the hassles of disconnecting and reconnecting sources to a TV with only one or two HDMI inputs. Switch easily between any four HDMI sources with the IR remote included, with up to 16 combinations.

- Mains plugpack included.
- Supports HDMI 1.3b
- Supports HDTV 1080p
- Video amplifier bandwidth 2.25Gbps/225MHz

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1622	$129.00	$115.95	$102.95

STORE DETAILS

For store locations and opening hours see the back cover of this catalogue or download our "Store Locator App".

HDMI SPLITTERS (CONTINUED)

HDMI Amplifier Splitter - 2 Way

Use this HDMI amplifier splitter to convert a single HDMI input signal into two identical and simultaneous output signals, all without losing high definition video and audio quality.

- Supports HDMI 1.3b
- Up to 2.25Gbps/225MHz
- Dimensions: 155(L) x 70(W) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1620	$59.95	$53.95	$47.90

HDMI CONVERTERS

Active Component Video to HDMI Converter

The converter will take the component video (YPbPr) and digital audio output from your DVD player, set-top box or Digital Pay TV box - and convert them to a HDMI signal. No need to upgrade everything else just yet!

- Mains adaptor included

Specifications	
Video input	YPbPr (component)
Audio input	Coax digital or optical
Supports	HD resolution up to 1080p
Power	5V@2A
Dimensions	90(L) x 68(W) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1607	$99.00	$88.95	$78.95

S-Video / Composite AV to HDMI Converter

Converts analogue CVBS, S-Video and audio (L/R) signal to HDMI signal. It not only meets HDTV picture quality, but it also meets the high standards of digital audio. It improves the interlaced video signal into a 720p progressive signal.

- Video output: NTSC 3.58 / PAL (auto)
- HDMI output: 720p@50/60Hz

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1624	$119.00	$106.95	$94.95

HDMI to VGA/Component & Analogue Audio Converter

This converter will allow you to convert HDMI signals from DVD, Blu-ray or set top boxes to VGA and component video with audio left and right for connection to your older TVs or PC monitors. Supports resolution up to 1080P, output resolution is determined by input. Full HDCP compliant.

- Rear panel features 1 HDMI input
- Front panel features component sockets (YPbPr), LR analogue RCA sockets and a VGA socket for output to a PC monitor
- Dimensions: 140(W) x 38(H) x 94(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1605	$129.00	$115.95	$102.95

HDMI to Composite AV Converter

Converts a standard Y/R/W RCA connection from any HDMI signal. Ideal for feeding a set top box or media device into an existing A/V distribution system for clubs or business, it is also useful for situations where you have existing A/V cables and no need to upgrade to a full HDMI signal path. Power supply included.

- HDMI input format: 480p / 576p / 720p / 1080i / 1080p
- A/V output format: PAL 576i or NTSC 480i selectable
- Input: HDMI Type A female / Output: RCA Yellow/Red/White
- Power: 5VDC 1A
- Dimensions: 102(L) x 100(W) x 25(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1623	$99.00	$88.95	$78.95

HDMI to VGA Converter

Converts digital high definition video from a HDMI source to analogue signal for displaying on older screens or projectors which only have a VGA input. Power is drawn from the HDMI port so no external power is required.

- HDMI input formats: 480p, 576p, 720p,1080p
- VGA video output format: 480p (720x480), 576p (720 x 576), 720p (1280×720), 1080p (1920x1080)
- Frequency: 50/60Hz
- Dimensions: 250(L) x 37(W) x 13(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1638	$69.95	$62.95	$55.95

VGA & R/L Audio to HDMI Scaler Converter

Combines the audio and upscale the VGA output signal on a computer to 1280 x 720p for optimum viewing on a HDTV. Ideal for computers that only have a VGA output.

- HDMI resolution fixed to 1280x720p
- HDMI 165MHz/1.65Gbps per ch (6.75Gbps total)
- HDMI 8 bit per channel

Signal inputs/outputs:
- Input signal: VGA, R/L audio
- Output video signal: HDMI 720p
- VGA resolutions:*
  640 x 480 at 60/72/75/85Hz
  800 x 600 at 60/72/75/85Hz
  1024 x 768 at 60/70/75/85Hz
  1280 x 720 at 60Hz
  1280 x 768 at 60/70/75/85Hz
  1280 x 800 at 60/70/75Hz
  1280 x 960 at 60Hz, 1280 x 1024 at 60Hz
  1440 x 900 at 60/75/85Hz, 1920 x 1080 at 60Hz
  1920 x 1200 at 60Hz, 1920 x 1440 at 60Hz
- Vertical freq range: 50/60Hz
- Video amp bandwidth: 1.65Gbps/165MHz
- Weight: 0.68kgs
- Dimensions: 88(L) x 68(W) x 25.5(H)mm

*Note: It is possible that several resolutions are limited on a few displays

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1617	$99.00	$88.95	$78.95

Mobile High-Definition Link (MHL) to HDMI Converter

Connect your MHL enabled Smartphone to a HDMI display such as a large flat screen TV or computer monitor. It also has a remote control function so you can use your HDTV remote to control your mobile device through the HDMI's CEC function. In essence it allows you to enjoy all the functions of your phone on the big screen. Games, movies, video calls, and any anything else you can think of. Connect the micro USB lead to your phone and a micro USB lead to the device to power, then connect a male-male HDMI cable to the device and to the display. Please ensure your phone supports MHL.

- Supports HDMI resolution:720p/60Hz,1080i/60Hz,1080p/24Hz/30Hz/60Hz
- Dimensions: 53(L) x 28(W) x 11(H)mm
- Lead length: 90(L)mm

Compatible with:
- HTC Rezound phone
- Samsung Galaxy Note phone
- Samsung Galaxy S II phone
- Samsung Infuse 4G phone
- Galaxy Nexus phone
- HTC Evo 3D phone
- HTC Flyer tablet
- HTC Sensation phone
- HTC Sensation XE phone
- HTC Amaze 4G phone

	Cat.	Qty 1+	Qty 4+	Qty 10+
	WQ-7421	$29.95	$26.90	$23.70

11 - 5 Pin MHL Adaptor to suit Samsung® Galaxy S3 and Note 2

A tiny adaptor that allows you to connect your Samsung Galaxy S3® or Galaxy Note 2® to a Micro-B USB MHL adaptor.

- Suitable for use with our MHL Adaptor (WQ-7421)
- Dimensions: 31(L) x 12(W) x 7(W)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	PA-0895	$7.95	$6.95	$6.25

HDMI Converters & Extenders

HDMI SWITCHES, SPLITTERS, CONVERTERS (CONTINUED)

HDMI to DisplayPort Converter

Many monitors are now available with a DisplayPort input and this converter will allow you to plug the monitor directly into a HDMI output on a device. For example you could connect your Blu-ray®/DVD player, PS3®, Xbox® etc to any DisplayPort equipped monitor.

Cat.	Qty 1+	Qty 4+	Qty 10+
AC-1621	$89.00	$79.95	$70.95

HDMI Audio Signal Volume Leveller

Great audio means you need the best, and with advanced HDMI repeating and decoding the HDMI Volume Leveller is the perfect choice to fine-tune your listening experience. Also helps protect your valuable home theatre equipment from annoying and equipment-damaging noise spikes. It will even sort out those annoying fluctuations in volume while channel surfing or between the TV shows themselves and the advertisements (which always seem to be louder).

- Regulates TV, satellite, radio and DVD volume
- Mains power supply included
- HDMI in/out ports
- Boosts low and high-frequency content dynamically
- Measures: 100(W) x 64(D) x 23(H)mm.

Cat.	Qty 1+
AC-1615	$99.00

HDMI EXTENDERS

Wall Plate HDMI & IR Repeater CAT5e Extender

A neat and simple wall plate HDMI extender kit. This kit extends your high definition AV source from your Blu-ray DVD Players, PS3, XBOX etc. up to a maximum 100m via Cat5 cables through the wall cavities. Supports full 1080p high definition of up to 30m. Integrates an infra-red extender for full control from the receiving end. RJ45 connections on the rear of each unit makes for easy connection.

- CAT5 / 5e / 6 cable compliant
- HDMI 1.3 compliant
- Transmission range of up to 100m
- Supports up to true HDMI (1080p)
- Transmission Range: 100m (480i, 576i, 480p, 576p) / 70m (720p, 1080i) / 30m (1080p)
- Mains power supply included
- Wall plates measure: 115(H) x 70(W) x 32(D)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
AC-1659	$149.00	$133.95	$118.95

Cat5/6 HDMI Extender

Most HDMI over Cat5/6 extenders available use two cables for data and signal transmission. This extender only utilises one Cat5/6 cable reducing the cable costs further on transmission over great distances. Both unshielded twisted pair (UTP) and shielded twisted pair (STP) cables may be used, however shielded is recommended.

- HDCP compliant
- Mains adaptor included

Specifications	
Supported resolution	480p, 720p, 1080i, 1080p
Bandwidth	1.65Gbps
Transmission Range	Cat5 UTP 24AWG 1080p/35m, 1080i/40m
	Cat6 UTP 24AWG 1080p/45M, 1080i/30m
Supported HDMI cable length	
Source to sender	2m
Receiver to screen	2m
Power Requirement	5VDC at sender and receiver
Max power consumption	15W
Size (sender & receiver)	100(W) x 66(D) x 26(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 4+	Qty 10+
AC-1681	$149.00	$133.95	$118.95

HDMI Over Cat5 Extender

An HDMI 1.3 over Cat 5 Extender with boosts your video/audio transmission distance up to 60m (200ft) in HDTV 720p / 1080i format. With two low cost Cat5/5e/6 cables, you can extend HDTV sources from DVD players, Blu-ray Disc player, PS3, PC, and any other TMDS compliant source to distant display monitors including HDMI enabled TV sets, LCD PC monitors or projectors. With the embedded IR receiving and emitting units you an enjoy high quality audio/video and control the HDMI sources from a remote site instantly.

- HDMI 1.3c compliant
- Extends the transmission distance up to 60m from the sources under 1080i or 720p
- Extends the transmission distance up to 40m from the sources under 1080p
- Provides independent DDC channel, fully HDCP compliant
- Minimises the cable skew by adjustable 8-level equalization control
- Embedded IR control path

Specifications	
Video bandwidth	Single-link 225MHz (10.2Gbps)
Video support	480i / 480p / 720p / 1080i / 1080p
Transmission	Full HD (1080p): 40m (130ft) CAT5e/ 50m (165ft) - Cat6
HD (720p/1080i)	50m (165ft) - CAT5e / 60m (200ft) - Cat6
Audio support	Surround sound (up to 7.1ch) or stereo digital audio
Equalisation	8-level digital on RX
Input	1x HDMI, 2x RJ-45, 1x 3.5mm
Output	2 x RJ-45, 1 x 3.5mm, 1 x HDMI
Carrier frequency	38kHz
Power supply	5VDC @ 4A
Dimensions	80(L) x 60(W) x 25(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 2+	Qty 4+
AC-1689	$169.00	$151.95	$134.95

CABLE ENTRY WALLPLATES

Recessed Cable Entry Wallplate

Create a neat cable entry/exit point for terminated or non-terminated audio and video leads. The wallplate design allows cables to be passed through walls with minimal fuss and the inner curved recessed design ensures maximum safety.

- Mounting screws included.
- Screw thread size: 2.5mm

SMALL
- Dimensions 124(W) x 82(H) x 36(D)mm

Cat. PS-0295

LARGE
- Dimensions 124(W) x 82(H) x 55(D)mm

Cat. PS-0297

	Cat.	Qty 1+	Qty 5+	Qty 10+
Small	PS-0295	$6.95	$6.25	$5.50
Large	PS-0297	$6.95	$6.25	$5.50

Brushed Rear Cable Entry Wallplate

NEW 2013

Allows you to run pre-terminated cables through a wall. Brushed entry and concave extrusion will help protect against dust and keep the cables secured.

- Great for use with HDMI, Cat5, component/composite, S-video, and a variety of other cables.

Cat.	Qty 1+	Qty 5+	Qty 10+
PS-0296	$9.95	$8.75	$7.75

Brushed Cable Entry Wallplate

Single gang brush plate for cable entry through walls etc. Suitable for pre terminated cables going to LCD or plasma screens, and particularly suited to HDMI cables as they can't be split, spliced or field-terminated. An ideal solution if you only have a short cable run.

Cat.	Qty 1+	Qty 5+	Qty 10+
PS-0291	$9.95	$8.75	$7.75

Multimedia Wallplates

NEW 2013

Give your media station or projector installation a neat finish with these handy multimedia wallplates. Available with a variety of video, audio, and data terminals to suit analogue and digital systems, all connections are double-sided for easy installation. Simply run a pre-made cable within the wall cavity or cabinet and plug it into the back of the wallplate.

- Standard GPO mount wallplate with concealed screws
- Plate dimensions 116(H) x 75(W) x 12(D)mm
- Approximate cavity depth required 60mm
- 150mm flylead behind plate on USB and HDMI connections

VGA, PC AUDIO, AND COMPOSITE AUDIO AND VIDEO

- VGA video
- Stereo 3.5mm audio
- RCA audio and video

PT-0471

VGA, USB, AND HI-FI AUDIO

- VGA video
- USB data with flylead
- Stereo RCA audio

PT-0473

HDMI, VGA, PC AUDIO, AND COMPOSITE VIDEO

- HDMI with flylead
- VGA video
- Stereo 3.5mm audio
- RCA composite video

PT-0475

VGA WITH PC AUDIO

- VGA video
- Stereo 3.5mm audio

PT-0477

NEW LOWER PRICE

VGA WITH HI-FI AUDIO

- VGA video
- Stereo RCA audio

PT-0478

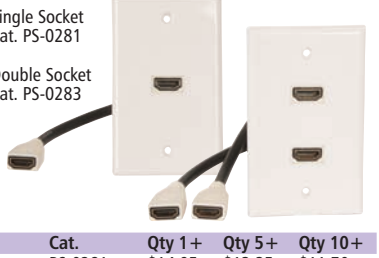
CRAZY CLEARANCE

Cat.	Qty 1+	Qty 5+	Qty 10+
PT-0471	$24.95	$22.35	$19.70
PT-0473	$24.95	$22.35	$19.70
PT-0475	$29.95	$26.90	$23.70
PT-0477	$19.95	$17.70	$15.70
PT-0478	$14.95	$13.35	$11.70

HDMI 1.4 Wallplate with Flylead

Standard Australian/NZ GPO mount with HDMI sockets for AV installations.

- Single Socket Cat. PS-0281
- Double Socket Cat. PS-0283



Cat.	Qty 1+	Qty 5+	Qty 10+
PS-0281	$14.95	$13.35	$11.70
PS-0283	$24.95	$22.35	$19.70

Inserts for Keystone Wallplates

NEW LOWER PRICE NEW 2013

A range of inserts to cater for computer and Audio video applications. They fit standard 110 keystone wall plates and allow you to configure your installation any way you like.

Insert Type	Cat.		Qty 1+	Qty 5+	Qty 10+
F81 - F81 - White	PS-0761		$2.95	$2.60	$2.30
BNC - BNC - White	PS-0763		$2.95	$2.60	$2.30
RCA - RCA Socket - White	PS-0764		$2.95	$2.60	$2.30
RCA - RCA - Red	PS-0765		$2.95	$2.60	$2.30
RCA - RCA - Yellow	PS-0767		$2.95	$2.60	$2.30
S-Video - S-Video	PS-0769		$3.95	$3.45	$3.15
3.5mm Socket	PS-0777		$2.95	$2.60	$2.30
4mm Banana - Banana - Red	PS-0774		$2.95	$2.60	$2.30
4mm Banana - Banana - Black	PS-0775		$2.95	$2.60	$2.30
Toslink - Toslink	PS-0749		$3.95	$3.45	$3.15
RJ11 Socket - 6P4C	YN-8026		$4.95	$4.45	$3.90
RJ12 Socket	YN-8027		$4.95	$4.45	$3.90
RJ45 Socket - Cat5e	YN-8028		$4.95	$4.45	$3.90
RJ45 Socket - Cat6	YN-8029		$4.95	$4.45	$3.90
HDMI - HDMI - White	PS-0771		$9.95	$8.75	$7.75
HDMI - HDMI Right Angle	PS-0796	NEW	$9.95	$8.75	$7.75
HDMI - HDMI with Flylead	PS-0797	NEW	$12.95	$11.35	$10.35
USB - USB - Right Angle	PS-0795	NEW	$4.95	$4.45	$3.90
USB - USB - White	PS-0773		$4.95	$4.45	$3.90
USB B - USB A Socket	PS-0753		$4.95	$4.45	$3.90
USB 3.0 - USB 3.0 - White	PS-0799		$12.95	$11.35	$10.35

Keystone Wallplates

Flush type wall plates to accept our standard keystone 110 jacks. Fits standard Australian electrical switch plate installation hardware and screw centres, making it perfect for easy flush installation on plasterboard or other cavity walls.

- Supplied unloaded without keystone jacks
- Dimensions 70(W) x 114(H) x 6(D)mm

		Cat.	Qty 1+	Qty 5+	Qty 10+
Single	White	YN-8050	$2.50	$2.21	$1.95
Double	White	YN-8052	$2.50	$2.21	$1.95
Triple	White	YN-8054	$2.75	$2.45	$2.15
Quad	White	YN-8056	$2.90	$2.60	$2.30
6 Way	White	YN-8058	$2.90	$2.60	$2.30

DisplayPort Wallplate Socket with 3 Keystone Ports

NEW 2013

Standard GPO sized wallplate for creating a neat DisplayPort connection for lecture theatres or meeting rooms. The DisplayPort standard is finding its way into more devices and offers various advantages over HDMI including better cable retention compared to HDMI (the plug stays plugged in!). It also gives higher bandwidth, longer cabling runs, and more.

Cat.	Qty 1+	Qty 5+	Qty 10+
YN-8055	$14.95	$13.35	$11.70

DVI Wallplate Socket With 4 Keystone Ports

NEW 2013

Features a DVI socket to socket joined to the wallplate with standard D-sub screws as well as 4 keystone ports. Gives you flexibility to expand your wallplate with a combination of other required sockets.

- Dimensions: 115(L) x 70(W)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
YN-8057	$12.95	$11.35	$10.35

VGA Wallplate Socket with 4 Keystone Ports

NEW 2013

VGA Wall Plate Socket with 4 Keystone Ports

Cat.	Qty 1+	Qty 5+	Qty 10+
YN-8059	$9.95	$8.75	$7.75

RELATED PRODUCT...

XLR & 6.5mm audio wall plates are on page 139

IR Extenders

IR EXTENDERS

4 Channel Compact Infrared Extender Kit

Some aesthetically pleasing home theatre setups may not be 100% functional. Video/audio source devices like DVD players or stereo systems may be hidden in a cabinet to create a clean minimalistic setup. In these scenarios, the signal from your remote control may be partially or completely blocked. To overcome this issue you can use this IR repeater extender kit which give you full control of your devices all through a tiny little IR receiver.

Plug the IR receiver in (to receive signals from your remote), then connect up to 4 devices to the emitter outlets to easily control all those sources even if they're hidden from view. Thanks to the 3M adhesive backing on the IR receiver the emitters can be mounted in an unobtrusive location. The kit is 4 channel so will accept up to 4 source devices. The IR repeater unit includes mounting holes and screws for attachment to your cabinet or other surface.

NEW 2013

Kit includes:
2 x Dual IR emitter cables included
1 x IR receiver cable (to receive signals from remote controls)
1 x Mains plugpack
1 x Repeater/Extender

Specifications	
Cable length	3m
Dimensions	103(L) x 32(W) x 16.5(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1828	$59.95	$53.95	$47.90

Foxtel® IQ2 Compatible IR Remote Control Extender

NEW 2013

Allows you to control your video source devices like set top boxes, a Blu-Ray/DVD player, or even a HDMI switcher from another room. For those situations where you have a source transmitting to one or more TVs in different rooms. There is a receiver which plugs into the source device and a transmitter which picks up a signal from your remote control and relays it to the receiver.

Specifications	
IR receiving range	>8m
Foxtel® IQ2 compatible	
Transmission range	Up to 50m in clear sight
Carrier frequency	433.92MHz
Power supply	9VDC/150mA
Dimensions	70(L) x 50(W) x 20(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1827	$49.95	$44.90	$39.90

IR Remote Control Extender

Extend the range of your IR remote control up to 100m through walls if need be. IR commands are sent by the transmitter via 433MHz signal to the receiver in another room, then sent to the components you want to control. Great if you want to keep your home theatre components out of sight or make absolutely sure the kids turn the TV off when they're supposed to.

- Operates with Foxtel®(not IQ®)
- Mains plugpacks for transmitter & receiver included.

Specifications	
Transmission range	Up to 100m line of sight
Frequency	433MHz
Dimensions	100(Dia) x 120(H)mm (including antenna)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1817	$49.95	$44.90	$39.90

IR Remote Control Extender to suit PayTV

Control a VCR, DVD/Blu-ray player, Hi-Fi and PayTV box (including most modern ones) from another room up to 30m away. This clever design uses a battery shaped transmitter that replaces one of the batteries in the remote control. With some electronic smarts it is able to repeat the Infrared signal to the receiver in the other room to control the AV equipment. The AAA sized transmitter includes a rechargeable battery, which lasts for months before needing a recharge, and a AA adaptor for use in larger remotes. The receiver can be either placed within 10m of the AV equipment or hidden away with the use of the small IR output cable.

- Supplied with transmitter, AA adaptor, two rechargeable 2/3AA batteries, receiver with power supply and IR output cable on a 1.8m lead.
- Foxtel® IQ compatible
- MySky® NZ compatible

Specifications	
Transmission range	30m
Frequency	433.92MHz
Channels	3
Dimensions	100(Dia.) x 54(H)mm

Note: Remote control & batteries not included.

1 YEAR WARRANTY

ADDITIONAL TRANSMITTER & BATTERIES FOR AR-1821 REMOTE CONTROL EXTENDER

NEW 2013

The AR-1821 Remote Control Extender has provision for a second remote control so you can control a second device, say a DVD or Blu-ray player, from the other room. This pack includes the transmitter, AA adaptor, two rechargeable 2/3rd AA batteries and IR output cable.

	Cat.	Qty 1+	Qty 2+	Qty 4+
Remote Control Extender	AR-1821	$59.95	$53.95	$47.90
Additional TX Batteries	AR-1823	$34.95	$31.45	$27.90

IR Emitter Kits

Are your home entertainment components hidden away in a cabinet? This IR Emitter Kit solves the problem and is the perfect way to simplify the way you control your home entertainment system.

AR-1812

Many of today's home theatre / Hi-Fi systems are set up with the components hidden from view in a cabinet. Great for aesthetics and security, but what do you do when you want to use the remote? You have to keep the cabinet door open, which defeats the purpose of having the components in the cabinet in the first place. You can also use it to extend the range of your IR remote control to another room, or run all your remote controlled devices from a single sensor. These IR Emitter Kits act like a hub, enabling you to interface all your IR remote controlled devices together and control them from a single sensor point.

Two different models are available, providing for up to six IR emitters to be connected to a single point and you can add extra emitters as you need.

AR-1814

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 2+	Qty 4+
2 Input IR Extender	AR-1812	$79.95	$71.95	$63.95
6 Input IR Extender	AR-1814	$99.00	$88.95	$78.95

RELATED PRODUCT...
For an extensive range of AV Receiver/Transmitters see page 443

Composite AV Cat5 Balun With IR Extender

Transmit crystal-clear audio and video signals over long distances via economical Cat5 cable. You can also use it for extending the range of your remote control. The wideband IR will receive signals from many types of remotes. Simply connect stereo audio and composite video to the transmitter and receiver, then hook up the IR sensors to your equipment.

- Signals can be transmitted up to 300 metres on UTP.

Specifications	
Video	75 ohm unbalanced
Audio	600 ohm balanced
Bandwidth Video	DC - 12MHz
Audio	50Hz - 15kHz
Propagation distance	Up to 300m via UTP
Power requirements	12VDC 30mA max
Dimensions	64(W) x 73(D) x 29(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Cat5 Balun	QC-3681	$89.00	$79.95	$70.95
Spare IR Receiver	AR-1819	$19.95	$17.70	$15.70

Component Video Cat5 Balun With IR Extender

Component video/digital audio extender which allows transmission up to 100 metres over economical Cat5 cable. Also equipped with an Infrared extender which allows you to control channels and settings from the receiver's end.

- Supports up to 1080p.
- Mains plugpack included for receiver.

Specifications	
Interface	3 x RCA component, 1 x RCA digital audio, UTP: RJ45
Impedance	Video 75ohm / UTP: 100 ohm balanced
Bandwidth	DC - 60MHz
Transmission distance	480p: 100m, 720p: 75m, 1080p: 50m
Dimensions	74(L) x 64(W) x 28(H)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Cat5 Balun	QC-3683	$89.95	$80.95	$71.95
Spare IR Receiver	AR-1819	$19.95	$17.70	$15.70

Spare IR Receiver for Cat5 Baluns

Spare or replacement receiver for the following:

- QC-3681
- QC-3682
- QC-3683
- QC-3685
- QC-3686

	Cat.	Qty 1+	Qty 2+	Qty 4+
	AR-1819	$19.95	$17.70	$15.70

VIDEO AMPLIFIERS

4 Way AV Component Distribution Amplifier

Offering the extra flexibility of component video, this AV distribution amp allows you to take advantage of HDTV on digital pay-TV and free-to-air. Distributes one set of component and stereo audio inputs to four outputs without loss or degradation. Mains adaptor included.

- Supports up to 1080p resolution
- 12VDC 500mA power supply
- Dimensions: 190(W) x 90(H) x 23(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1648	$49.95	$44.90	$39.90

4 Way AV Stereo Distribution Amplifier

Designed to split a stereo A/V signal across 4 channels without loss of image or sound quality. You can wire the rumpus room, outside entertainment area, bedrooms, lounge room or anywhere else you would like to access audio and video from a central source.

You can also use it to record to up to four sources at the same time.

- 12VDC operated
- Mains plugpack included.
- Composite video input 1-3Vpp; 75 ohms
- Stereo audio input -20dB; 25k ohms
- 4 x Composite video outputs 1Vpp output; 75 ohms
- 4 x Stereo audio outputs
- RCA Input & output connectors
- Size: 176(W) x 90(H) x 25(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1646	$49.95	$44.90	$39.90

AV BALUNS

Powered Cat5 VGA Baluns with Audio

Able to transmit VGA and audio signals across a standard UTP or STP CAT5 cable for distances up to 300 metres. Adjust the brightness and skew of the image with the peak and gain options. Use for home or commercial applications, for example, classrooms, lecture halls, auditoriums, retail kiosks, video information displays, tradeshows, etc. Ideal for VGA monitors or LCD projection screens. Supports up to 1920 x 1200 pixels. Supplied as a sender and receiver pair with plug packs included.

Specifications	
Power requirements	5VDC for both sender and receiver
Vertical frequency range	60/75/85Hz
Supported resolutions	640X480, 800X600, 1024X768, 1280X720, 1280X768, 1280X960, 1280X1024, 1600X900, 1600X1200, 1920X1080, 1920X1200
Includes	2 x right angle mounting brackets for send unit
Sender Dimensions	100(L) x 65(W) x 26(H)mm
Receiver Dimensions	81(L) x 43(W) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1671	$119.00	$106.95	$94.95

AUDIO BALUNS

Stereo Audio Cat5 Baluns

Ideal for making long audio runs with pre-made patch leads or for feeding audio signals through existing point to point UTP cables in buildings. Capable of carrying audio signals up to 75m* the balun fly lead connects directly from the input or output socket of your audio system to the RJ45 termination of a UTP cable. Available in two versions to suit RCA or 3.5mm audio connection with both units suitable for use with Cat5, Cat5e, and Cat6 UTP cable.

QC-3666

QC-3668

- Sold per pair
- Balun dimensions: 37(L) x 28(W) x 25(H)mm
- Fly lead length: 140mm

*Maximum distance depends on local conditions and audio quality may be affected by length of cable. See website for hints on improving audio quality.

	Cat.	Qty 1+	Qty 4+	Qty 10+
RCA Stereo Audio to Cat5 Balun	QC-3666	$19.95	$17.70	$15.70
3.5mm Stereo Audio to Cat5 Balun	QC-3668	$19.95	$17.70	$15.70

AUDIO CONVERTERS

TOSLINK/Coaxial Digital Audio Converters

Achieve compatibility between devices which have different digital audio inputs and outputs. Allows you to connect a DVD Player, video game console or sound card with a coaxial digital output to a home theatre receiver or digital recorder that only has TOSLINK optical input or vice-versa depending on which models you buy. For longer cable runs, you can input power to avoid signal loss and degradation.

TOSLINK TO COAXIAL DIGITAL AUDIO CONVERTER

Specifications	
Optical Digital Input	via TOSLINK
Coaxial Digital Output	via RCA socket
Sample Rates	44.1kHz / 48kHz / 96kHz 192kHz
Weight	33 grams
Power supply	DC 6V / 250mA
Dimensions	72(W) x 48(L) x 23(H)mm

AC-1598

COAXIAL TO TOSLINK DIGITAL AUDIO CONVERTER

Specifications	
Coaxial Digital Input	via RCA jack
Optical Digital Output	via TOSLINK
Sample Rates	44.1kHz / 48kHz / 96kHz 192kHz
Weight	approx. 33 grams
Power Supply	DC 6V / 250mA
Dimensions	72(W) x 48(L) x 23(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
TOSLINK to Coaxial	AC-1598	$29.95	$26.90	$23.70
Coaxial to TOSLINK	AC-1599	$29.95	$26.90	$23.70

HDMI Audio Extractor

If you have an older home theatre system which has no HDMI inputs, this is the device for you. It will extract the audio signal from your HDMI source (like a Blu-Ray player) and output the video to HDMI and audio to a digital TOSLINK optical, Coaxial RCA, or an analogue 3.5mm socket for connection to an amplifier or home theatre audio system.

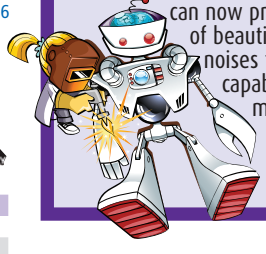
- Simultaneous SPDIF and Stereo output
- 2.0CH/5.1CH audio switch
- Supports up to 1080p
- Supports 225MHz/2.25Gbps per channel (6.75Gbps all channel) bandwidth
- Supports 12-bit per channel
- HDCP support
- Supports uncompressed audio such as LPCM
- Supports compressed audio such as DTS Digital, Dolby Digital
- Dimensions: 70(L) x 60(W) x 20(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1637	$99.00	$88.95	$78.95

Circuit Bent Casio SK-1 Atari Vader Hybrid

Makers Name: Chad Jane
Location: Western Australia

One Casio SK-1 sampling keybaord spliced with an Atari Vader. The keyboard has been modified (circuit bent) and all the bends wired to the patch bay as well as the pots and switched on the Atari part of the instrument. The keyboard can now produce a rainbow of beautiful to offensive noises that it was not capable of before modification.



For more details scan the QR code or go to www.jaycar.com.au/makers

AV Converters

AUDIO CONVERTERS (CONTINUED)

HDMI Stereo Audio Inserter

This unit accepts either an analogue RCA line input or a digital Toslink audio input and combines it to the high definition HDMI signal. Supports stereo or surround sound audio signals, making it ideal for video editing applications, shop and commercial displays or an addition to your home cinema.

- Supports 3D signal
- Compliant with HDMI 1.3, HDCP 1.2 and DVI 1.0
- Supports HDMI sample rates up to 192kHz
- Supports Optical sample rates up to 48kHz
- HDMI Audio Format: PCM2/5.1/7.1, Dolby 5.1, DTS 5.1, DD+, D-TrueHD, DTS-HD
- Optical Audio Format: PCM2, Dolby Digital, DTS Digital audio 5.1
- Dimensions: 90.7(W) x 85.8(D) x 34(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
With Audio In	AC-1636	$129.00	$115.95	$102.95

High Definition Audio Digital-to-Analogue Converter

A compact converter that takes a toslink optical, SPDIF coaxial and converts it to standard analogue left and right stereo audio. Allows for digital audio devices to be interfaced to analogue components such as a power amplifier, receivers, powered speakers or headphones via standard RCA line level output.

- Bridge legacy sound system with digital sources
- Support up to 24bit / 192kHz via toslink optical and SPDIF coaxial interface

Note: This DAC accepts 2 channel digital audio only and works with any PCM stream with Dolby Digital or DTS disabled

Specifications	
Inputs	Toslink optical / SPDIF coaxial
Outputs	left and right stereo audio RCA
Bit Rate	16-24 bits
Sample Rate	32kHz / 44.1kHz / 48 kHz / 96kHz / 192kHz
Power supply	6VDC 250mA (included)
Dimensions	80(W) x 69(D) x 27(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1631	$59.95	$53.95	$47.90

High Definition Audio Digital-to-Analogue Converter with USB Interface and Headphone Jack

The converter takes a toslink optical, SPDIF coaxial or USB digital audio source and converts it to standard analogue left and right stereo audio. Allows for digital audio devices to be interfaced to analogue components such as a power amplifier, receivers, powered speakers or headphones via standard RCA line level output. It has a built in OP amp with adjustable volume control for personal listening through earphones or headphones.

- Built-in OP amp with adjustable level control
- Bridge legacy sound system with digital sources
- Support up to 24bit / 192kHz via to slink optical and SPDIF coaxial and USB interface
- Plug and play with Windows 7, Windows XP and Windows Vista
- Requires no additional drivers or software

Specifications	
Inputs	USB / to slink optical / SPDIF coaxial (Switchable)
Outputs	left and right stereo audio RCA and 3.5mm stereo headphone jack (Built-in OP headphone amplifier)
Bit Rate	16-bit to 24-bit
Sample Rate	32kHz / 44.1kHz / 48 kHz / 96kHz / 192kHz (via toslink.optical) 32kHz / 44.1kHz / 48 kHz / 96kHz (via USB)
Power supply	5VDC 1A (included)
Dimensions	111(W) x 105(D) x 30(H)mm

Note: This DAC accepts 2 channel digital audio only, and works with any PCM stream with Dolby Digital or DTS disabled

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1633	$99.00	$88.95	$78.95

USB 2.0 Audio Converter

This handy device allows you to output audio from your PC or Apple® computer in high fidelity 24-bit 192kHz audio. Audio can be output via Toslink Optical, RCA analogue, or direct to headphones. Simply connect to your computer via USB and you're away! The device can output concurrently to analogue (RCA & headphone) and digital (optical Toslink). No power required, drawing power from the USB port itself.

- Compatible with Windows and Mac OSX platforms
- USB 2.0 connectivity

Specifications	
Outputs	6.5mm headphone, 2 x RCA, and Toslink optical
Bit rate	16-24 bits
Sampling rates	44.1, 48, 88.2, 96, or 192kHz
Dimensions	85(W) x 85(D) x 35(H)mm

	Cat.	Qty 1+
	AC-1616	$99.00

Ground Loop Isolator (Stereo) RCA

Used to eliminate ground loop problems (usually manifested as a low frequency hum) in audio connections. Earthing brown ground wires sometimes helps even more. Secured to a solid object with cable ties. Very neat!

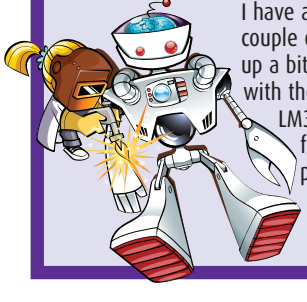
	Cat.	Qty 1+	Qty 4+	Qty 10+
	AA-3084	$9.95	$8.75	$7.75

AUTOMATIC ACCOUNT

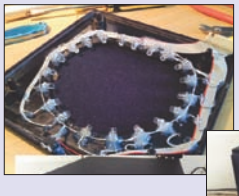
For Schools, Government Departments, Public Companies, Radio & TV Stations

Party Speaker

Makers Name: James Anderson



I have a computer speaker system and a couple of years ago I decided to spruce it up a bit with some LEDs that flash in time with the music as a fun project. I used a LM3915N LED driver with an adjustable input and flashing function and 20 blue LEDs. Most of the components were purchased from Jaycar and others I already had.



For more details scan the QR code or go to www.jaycar.com.au/makers

AV SELECTORS, SWITCHES & CONVERTERS

2 Way AV Selector Switch

Switch between two composite video and stereo audio sources.

- Easy push-button operation.

Back of unit

Specifications	
Channel Separation	60dB @ 1kHz
Cross-talk	70dB @ 1kHz
Dimensions	135(W) x 50(D) x 32(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1650	$12.95	$11.35	$10.35

4 Way AV Selector

Connect up to four AV devices such as DVD players, VCRs or gaming consoles with a single output to your TV and switch between them as required.

- Inputs can be either composite or S-video.
- Easy-to-use pushbutton front panel.
- Composite and S-video inputs
- Dimensions: 190(W) x 112(D) x 47(H)mm

Back of unit

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1652	$24.95	$22.35	$19.70

Remote Control Audio/Video Selector Switch

NEW 2013

Connect up to 4 AV sources to one television and switch between them remotely. There are 4 x RCA composite/S-Video inputs and 1 x RCA composite/S-Video output.

Hook up a DVD player, set type box, game console, and output to your display.

- Dimensions: 190(L) x 115(W) x 50(H)mm

Back of unit

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1654	$44.95	$40.45	$35.90

Remote Control AV Selector

Say goodbye to connecting and reconnecting cables because you have run out of A/V inputs on your home theatre system. This device eliminates cable hassles, using the Remote A/V Selector you can add up to 3 A/V sources to your Home theatre's A/V inputs. Easily switch between devices like DVD players, Satellite receiver or game consoles using the front panel or remote control.

Input: 3 Sets / Output: 1 Set

CONNECTORS FOR INPUT:
3 TOSLINK Optical Jack
3 S-Video Jack
3 Composite Video jack
3 Stereo Audio Jack (R/L)

CONNECTORS FOR OUTPUT:
1 TOSLINK Optical Jack
1 S-Video Jack
1 Composite Video jack
1 Stereo Audio Jack (R/L)

NEW LOWER PRICE

Specifications	
Power	DC Power Jack
Power Requirement	DC 9V / 500mA
Dimension	240(L) x 110(W) x 51(H)mm
Weight	691g
Power	9VDC / 500mA power adaptor
	Remote Control

	Cat.	Qty 1+
	AC-1674	$59.00

AUDIO SWITCHES

3 Way Audio Selector

Many audio amplifiers don't provide enough inputs for all your components. Solve that problem easily with this 3-way audio switcher. It takes up to three stereo RCA inputs and provides a single stereo RCA output. Easy-to-use pushbutton front panel.

- 3 stereo pairs of RCA inputs
- Dimensions: 133(W) x 42(H) x 85(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1655	$15.95	$14.35	$12.70

4 Way Optical Switch Box

With the digital age evolving rapidly, more home theatre and Hi-Fi systems are utilizing the superior reproduction of digital audio. As a result, you may find yourself with optical outputs from your DVD, MD, or CD Players and only 1 optical receiver. This will switch between 4 inputs (3 x Toslink & 1 x 3.5mm optical) to 1 toslink optical output.

- A 1m Toslink cable is also included.
- Size: 190(W) x 78(D) x 36(H)mm
- Weight: 234g

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AC-1675	$24.95	$22.35	$19.70

4 Way Optical Switch Box with 1m Cable

NEW 2013

Connect up to 4 digital optical home or portable audio components such as LCD, Blu-ray player, DVD player, satellite receiver, cable set top box, or gaming systems to your home theatre to your home theatre system. This selector allows you to switch from one component to another just by turning the selector dial - no more disconnecting and connecting cables or moving equipment around, Play any of the 4 components you connect and enjoy the output through your home theatre system or digital surround headphone system.

1 YEAR WARRANTY

- Dimensions: 160(L) x 150(W) x 44(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1597	$24.95	$22.35	$19.70

Turntable Preamp Switch Box

Many modern amplifiers do not have a phono input for a turntable. This preamplifier/ switch box fixes that problem and also provides two selectable inputs to a stereo line level output which feeds into the auxilliary input on your stereo amplifier.

- Requires 12VDC mains adaptor

Specifications	
Input sensitivity	2.5mV
Input impedance	47k Ohm
Output	180mV
Current draw	10mA
Output impedance	47kOhm
Size	160(L) x 100(D) x 40(H)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1662	$24.95	$22.35	$19.70

OPEN A STORE ACCOUNT WITH JAYCAR

Jaycar is now accepting account applications from all established companies who can exhibit good trade references. For application details see our Store Managers.

Indoor/Outdoor Speakers

SPEAKER SYSTEMS

ABS Indoor/Outdoor Speakers

Attractive in design, these 2 way speaker system are very versatile. Suitable for indoor and outdoor (covered areas) applications, they can be mounted to a wall or ceiling and can be rotated 180 degrees for perfect sound projection. Each has a polypropylene woofer and dome tweeter. Ideal for conference rooms, auditoriums, lecture halls or out on the patio. Sold as a pair.

1 YEAR WARRANTY

4" INDOOR/OUTDOOR SPEAKERS
CAT. CS-2475

Specifications	CS-2475
Power handling	25WRMS
Frequency response	120Hz - 20kHz
Nominal Impedance	8 ohms
Cabinet size	210(H) x 140(W) x 120(D)mm

5" INDOOR/OUTDOOR SPEAKERS
CAT. CS-2476

Specifications	CS-2476
Power handling	30WRMS
Frequency response	100Hz - 20kHz
Nominal Impedance	8 ohms
Dimensions	245(H) x 185(W) x 168(D)mm

6.5" INDOOR/OUTDOOR SPEAKERS
CAT. CS-2477

Specifications	CS-2477
Power handling	40WRMS
Frequency response	80Hz - 20kHz
Nominal Impedance	8 ohms
Dimensions	296(H) x 217(W) x 190(D)mm

8" INDOOR/OUTDOOR SPEAKERS
CAT. CS-2478

Specifications	CS-2478
Power handling	50WRMS
Frequency response	50Hz - 20kHz
Nominal Impedance	8 ohms
Dimensions	345(H) x 285(W) x 220(D)mm

Sold as Pair		Cat.	Qty 1+	Qty 2+	Qty 10+
4"	Indoor / Outdoor Speakers	CS-2475	$69.95	$62.95	$55.95
5"	Indoor / Outdoor Speakers	CS-2476	$79.95	$71.95	$63.95
6.5"	Indoor / Outdoor Speakers	CS-2477	$99.00	$88.95	$78.95
8"	Indoor / Outdoor Speakers	CS-2478	$149.00	$133.95	$118.95

Rust Resistant Speaker Systems - IP55

Marine speakers nearly always corrode or rust. These ones won't! No metal grills, all plastic. Will work in any outdoor environment, of course. Best, however, to keep out of direct weather.

1 YEAR WARRANTY

5" IP55 30WRMS - 2 WAY

This unit is completely moulded in high density UV resistant plastic. The only metal parts exposed are the mounting bracket and the speaker terminals.

- Speakers 5" woofer, 2" tweeter. Passive X-over

Specifications	CS-2479
Power Handling	30WRMS
Frequency Response	56Hz - 20kHz
Sensitivity	92 dB +/- 2dB (1w/metre)
Dimensions (mm)	215(W) x 155(H) x 115(D)

Cat CS-2479

6.5" IP55 40WRMS - 2 WAY

Identical to CS-2479 except larger with greater power handling capability.

- Speakers: 6.5" woofer, 2" tweeter. Passive X-over

Specifications	CS-2480
Power Handling	40WRMS
Frequency Response	56Hz - 20kHz
Sensitivity	92 dB +/- 2dB (1w/metre)
Dimensions (mm)	265(W) x 195(H) x 145(D)

Cat CS-2480

Sold as Pair	Cat.	Qty 1+	Qty 2+	Qty 10+
5" Rust Resistant Speakers	CS-2479	$149.00	$133.95	$118.95
6" Rust Resistant Speakers	CS-2480	$179.00	$160.95	$142.95

Active 5" Stereo Speakers with USB

The built-in amp provides 30WRMS per channel, which is more than enough for most uses. Input is either via line-level RCA or USB, so it will accept memory sticks or any other USB device. Add an MP3 player and you have a complete digital music system. It also has bass, treble, volume and MP3 track controls on the back panel. Perfect for your next patio party. Sold as a pair.

- USB or RCA input
- Mounting brackets included
- Bass and treble controls.

Specifications	CS-2437
Power Output	30WRMS per channel
Frequency Response	45Hz - 20kHz
Nominal Impedance	4 ohms
Dimensions	180(W) x 235(H) x 180(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

Sold as Pair		Cat.	Qty 1+	Qty 2+	Qty 10+
5"	Pair	CS-2437	$169.00	$151.95	$134.95

In-Ceiling 2 Way 6.5" Speaker in Can Housing

A 2 way ceiling mount speaker which gives excellent audio quality due to an integrated housing on the back of the speaker. Being housed in a sealed metal can improves low frequency response as well as protecting the speaker from dust, debris, and insects. The housing also ensures speaker performance is not affected by variations in the ceiling space making it suitable for locations with false or raked ceilings.

Featuring a lightweight 6.5" honeycomb woofer and coaxial silk dome tweeter it can be flush mounted easily using the fold out retaining clamps or suspended in mid air using chain or cable attached to the housing brackets. A screw terminal cable entry is located on the back of the housing and a white clip on cover neatly conceals the speaker & mounting screws.

- Sold individually
- 8 ohm impedance

Specifications	
Woofer	6.5" honeycomb cone
Tweeter	25mm silk dome
Tweeter mount	Fixed
Rated Power	40WRMS
Frequency Range	110Hz - 18kHz
Sensitivity	89dB
Minimum mounting thickness	10mm
Dimensions	A 232, B N/A, C 210, D 190 mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Each	CS-2462	$69.95	$62.95	$55.95

IN-CEILING & WALL MOUNT SPEAKERS

In-Ceiling 2 Way Speakers

These ceiling speakers are a 2 way speaker design giving excellent audio quality compared to traditional PA speakers. Combining a coaxial woofer with dome tweeter they are available in three sizes to cover a variety of domestic and commercial applications. Two of the models also have adjustable tweeter mounts making them ideal when used in a home theatre setup by allowing you to direct high frequencies towards the centre of a room. The flush mount design and fold out retaining clamps allow them to be easily installed in new or existing ceilings, and the matte white finish blends in with most ceiling colours.

- Sold as a pair
- 8 ohm impedance

	CS-2451	CS-2453	CS-2455
Woofer	5.25" polymer cone	6.5" polymer cone	8" polymer cone
Tweeter	25mm silk dome	25mm silk dome	25mm silk dome
Tweeter mount	Fixed	Swivel	Swivel
Rated Power	30WRMS	40WRMS	50WRMS
Frequency Range	200Hz - 18kHz	180Hz - 18kHz	120Hz - 18kHz
Sensitivity	87dB	88dB	90dB
Minimum mounting thickness	6mm	8mm	10mm
Dimensions	A 200, B N/A, C 170, D 60 mm	A 230, B N/A, C 198, D 85mm	A 260, B N/A, C 228, D 85mm

Sold as a pair	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Way - 5.25"	CS-2451	$59.95	$53.95	$47.90
2 Way - 6.5"	CS-2453	$79.95	$71.95	$63.95
2 Way - 8"	CS-2455	$99.00	$88.95	$78.95

RELATED PRODUCT...

For Marine Speakers see page 443

Ultra-thin 5" 2 Way Wall Mount Speakers

You will be surprised at just how good these speakers sound! They consist of 5" woofer/mid and a 30mm Mylar dome yet they are less than 45mm in depth. Coupled with a half-decent subwoofer you have a respectable sound system without the bulkiness of normal Hi-Fi speakers.

Specifications	
Power	30WRMS
Freq Response	100Hz-20kHz
Impedance	4 ohm
Magnet	NdFeB
Sensitivity (1w@1m)	89dB
Dimensions	273(H) x 185(W) x 42(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
Pair	CS-2461	$79.95	$71.95	$63.95

In-Wall 2 Way 6.5" Speaker with Swivel Tweeter

Designed for use when space is limited, this in-wall speaker panel mounts flush with the wall lining turning the cavity space into a speaker enclosure. Ideal for use in hallways or galleries where bracket mounted speakers get in the way, they are also great for use in a home theatre setup or entertainment area. Featuring a 2 way 12dB crossover for optimal sound quality, it also has adjustable tweeter mounting and tweeter attenuation switch to customise the speaker to your required application. Easy to fit using the fold out mounting while the white flush mount cover helps protect and conceal the installed speaker.

- Sold individually
- 8 ohm impedance

Specifications	
Woofer	6.5" carbon fibre cone
Tweeter	25mm silk dome
Tweeter mount	Swivel
Tweeter attenuation	0, -3dB, or -6dB
Rated Power	30WRMS
Frequency Range	180Hz - 18kHz
Sensitivity	89dB
Minimum mounting thickness	8mm
Dimensions	A 345(H) x 235(W), B N/A, C 305(H) x 195(W), D 75mm

Sold individually	Cat.	Qty 1+	Qty 4+	Qty 10+
2 Way - 6.5" Each	CS-2464	$59.95	$53.95	$47.90

BUYING A DIGITAL READY ANTENNA?

What else will you need? We carry a comprehensive range of masthead and other amplifiers, antenna hardware, attenuators, baluns and modulators. Come into one of our Jaycar stores or stockists and ask our friendly staff.

Home Theatre Speakers

2.5" Indoor Lifestyle Cube Speakers

These cube speakers will blend with virtually any indoor setting and perfectly suit a home entertainment system or small PA setup. Surprising sound reproduction from the full range 2.5" speakers. Supplied with swivel brackets and mounting hardware suitable for wall or ceiling mount.

- Sold as a pair
- Power handling: 15WRMS
- Impedance: 8ohm
- Sensitivity: 88dB
- Frequency response: 150Hz - 20kHz
- Dimensions: 90(H) x 88(W) x 100(D)mm

MORE INFORMATION...
Save a fortune over expensive Euro types

	Cat.	Qty 1+	Qty 2+	Qty 10+
Pair	CS-2431	$39.95	$35.90	$31.90

8" Active Subwoofer with Satellite Output

Add some much needed bass and subsonic "feel" to your home theatre system or gaming machine with this active subwoofer. Movie audio will be enhanced, in-game gun battles will be more vibrant and immersive. Incorporates 2 x 20WRMS audio output for satellite speaker connection for true 2.1 sstereo performance.

- Housed in a sleek black enclosure.

Specifications	
Amplifier Power Output	120W
Frequency Response	30Hz-250Hz
Driver	8"
Variable Crossover	50Hz-200Hz
Dimensions	350(L) x 260(W) x 315(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2433	$149.00	$133.95	$118.95

12" Active Subwoofer

An attractive wood finish subwoofer that will add much needed substance to a home theatre system. Explosions, car crashes, and other movie events that demand thumping bass vibrations will be drastically enhanced with the addition of this subwoofer. The amp is rated at 100WRMS with a 30Hz-250Hz frequency response all supplied through a touch 12" reinforced driver.

Specifications	
Power Output	100WRMS
Frequency Response	30Hz-250Hz
Driver	12" Reinforced
Variable crossover	35Hz-200Hz
Input	Hi level (speaker), Line (RCA)
Output	Hi level (speaker)
Dimensions	436(L) x 433(W) x 446(H)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2429	$199.00	$178.95	$158.95

2.1 Speaker Subwoofer Deal

Combine our 8" Subwoofer (CS-2433) and a pair of CS-2431 2.5" Cube Speakers

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CS-2434	$169.00	$151.95	$134.95

MINI COMMS SPEAKERS

Mini Communications Speaker

For use with CB's and other communication devices, this mono speaker is small and can be mounted in any position for ease of use. It comes with a 3.5mm plug on a 2 metre cable and includes screws and bracket for mounting. It incorporates an 8 ohms round speaker and can handle 5 Watts Max.

Specifications	
Frequency response	100Hz- 15kHz.
Dimensions	85(W) x 65(H) x 55(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	AS-3185	$19.95	$17.70	$15.70

Rectangular Communications Speaker

For use with CB's and other communication devices, this mono speaker can be mounted in any position for enhanced listening of incoming transmissions. It comes with a 3.5mm plug on a 2 metre cable and includes screws and bracket for mounting. It incorporates an 8 ohms rectangular speaker and can handle 5 watts max.

Specifications	
Frequency response	100Hz- 15kHz
Dimensions	130(W) x 80(H) x 59(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Each	AS-3182	$17.95	$15.95	$14.35

Naval Style Communications Speaker with Gymbol Mount

This small but powerful unit delivers clear voice from either VHF, 27MHz or even HF communications receivers. It features a no-nonsense naval style in a light grey. It is very close to waterproof, in that the speaker cone is Mylar, the bezel is gasketed and the cord entry is IP65.

Specifications	
Power handling	2.25WRMS
Power Max	5W
Impedance	8Ohm
Freq range	320Hz - 4,500kHz
Sensitivity	88dB/m
Dimensions	66(L) x 66(W) x 55(H)mm
Weight	185g
2.2m cable terminated to a 3.5 plug	
Bezel dimensions	65mm square, 55 deep

	Cat.	Qty 1+	Qty 3+	Qty 6+
Each	AS-3186	$24.95	$22.35	$19.70

DOME TWEETERS

One unit is magnetically screened for applications where the device may be near a CRT screen, Home Theatre for example. The Titanium dome unit has quite a high power rating for a dome tweeter.

Both are ferrofluid filled which keeps the voice coils cool and adds to reliability. We are delighted with these products.

25mm Titanium Dome Tweeter

This tweeter features a titanium dome with a phase shield which provides a more controlled high frequency roll-off. It produces very crisp & clear high frequencies.

Specifications:	
Power handling	50WRMS
Nominal impedance	8 Ohms
Frequency response	2 - 20kHz
Sensitivity	91dB SPL @1W, 1m

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
104	94	70	27	CT-2007	$19.95	$17.70	$15.70

Vifa D25AG Tweeter

Over the last 20 years this iconic tweeter has found its way into countless OEM hi-fi, home theatre designs and high end speaker kits. Features an aluminium alloy diaphragm with high precision phase shield and butterfly voice coil assembly with Ferro fluid cooling to ensure high power handling. A double chamber also provides a resonant frequency of 850Hz. Add one to your project or give your current speakers a new lease on life.

Specifications:	
Power handling	100WRMS
Nominal impedance	6 ohms
Frequency response	1.5kHz - 20kHz
Recommended crossover	3kHz, 12dB/octave
Sensitivity	89dB 1W@1m

NEW LOWER PRICE

vifa

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
103	93	70	35	CT-2020	$49.95	$44.90	$39.90

PIEZO TWEETER

Response RSN1005 Piezo Tweeter

This unit is similar to the KSN1005. Does not require a crossover and is perfect for use for general PA applications where long throw is required.

Specifications:	
Power handling	400W (max)
Nominal impedance	8 Ohms
Frequency response	1 - 20kHz
Sensitivity	93dB @1W, 0.5m

RESPONSE

A	B	C	Dmm	Cat.	Qty 1+	Qty 4+	Qty 10+
85	101	75	70	CT-1930	$9.95	$8.75	$7.75

WOOFER

Vifa 6.5" DJ175WJ Woofer

A brilliant and versatile driver that can be designed to perform to 40Hz or lower. Features include a cast magnesium basket, mineral filled polycone and smooth frequency response.

- Ideal for bass reflex enclosures of 10 - 30 litres.

Specifications	
Power handling	70WRMS
Nominal impedance	8 ohms
Frequency response	37Hz - 5kHz
Sensitivity	88dB SPL @ 1W, 1m
Re	5.8 ohms
Qms	1.55
Qes	0.45
Qts	0.35
Vas	34.7l

NEW LOWER PRICE

vifa

	Cat.	Qty 1+	Qty 4+	Qty 10+
	CW-2106	$89.95	$80.95	$71.95

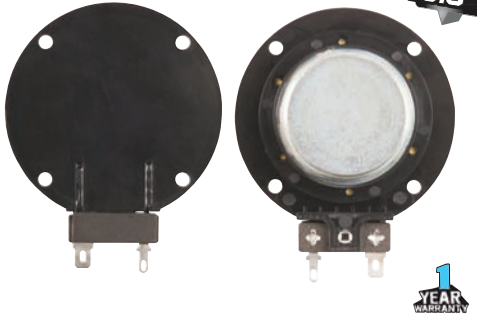
EXCITER SPEAKER

70mm Flat Panel "Exciter" Speaker

NEW 2013

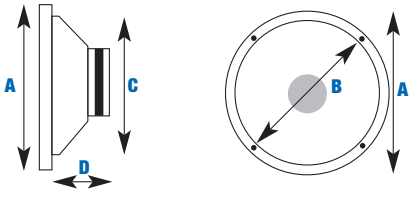
Unlike a conventional speaker that creates audio waves by moving air as a result of the cone travelling in and out, this "exciter" speaker produces the audio waves by vibrating the flat panel it is fixed to. Install it on ceiling panels, under a table, on a wall partition, behind a fibreglass panel or other flat surface where a conventional speaker can't normally be used. They are low profile, and could be used in a sealed chamber in a marine application. Array them to increase sound level.

- Sold individually
- Power handling: 15WRMS
- Impedance: 8 ohms
- Voice Coil: 1.25" KSV
- Weight: 125g
- Dimensions: A: 70mm B: 62mm C: N/A D: 20mm



	Cat.	Qty 1+	Qty 4+	Qty 10+
Each	AS-3039	$14.95	$13.35	$11.70

SPEAKER DIMENSIONS



A = From one side to the other
B = Mounting holes - diagonal
C = Cut out in millimetres
D = Depth

Hi-Fi Component Speakers

RESPONSE PAPER CONE WOOFERS

RESPONSE

These Response woofers are excellent for replacement or for new speaker design construction. Not only are they price competitive and perform very well, but they also look fantastic! The concave treated paper cone matched with rubber surround provides smooth overall response. Housed in strong steel frame baskets, high power magnet and voice coils, these drivers will produce massive quantities of clean bass output for any musical application.

4" Shielded Paper Cone Woofer/Midrange

Specifications:		Re	6 Ohms
Power handling	27WRMS	Qms	1.73
Nominal impedance	8 Ohms	Qes	0.67
Frequency response	70Hz - 7kHz	Qts	0.48
Sensitivity	86dB SPL @1W, 1m	Vas	5 litres
Tuning frequency		Fs	59.9Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
116	109	93	65	CW-2190	$24.95	$22.35	$19.70

5" Shielded Paper Cone Woofer/Midrange

Specifications:		Re	6 Ohms
Power handling	50WRMS	Qms	1.40
Nominal impedance	8 Ohms	Qes	0.72
Frequency response	70Hz - 7kHz	Qts	0.47
Sensitivity	88dB SPL @1W, 1m	Vas	7.3 litres
Tuning frequency		Fs	67.6Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
145	136	120	56	CW-2192	$29.95	$26.90	$23.70

6.5" Paper Cone Woofer/Midrange

Specifications:		Re	6 Ohms
Power handling	60WRMS	Qms	2.02
Nominal impedance	8 Ohms	Qes	0.57
Frequency response	44Hz - 7kHz	Qts	0.44
Sensitivity	89dB SPL @1W, 1m	Vas	19 litres
Tuning frequency		Fs	49.5Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
178	168	145	77	CW-2194	$34.95	$31.45	$27.90

8" Paper Cone Woofer

Specifications:		Re	6 Ohms
Power handling	90WRMS	Qms	1.46
Nominal impedance	8 Ohms	Qes	0.43
Frequency response	38Hz - 4.5kHz	Qts	0.33
Sensitivity	89dB SPL @1W, 1m	Vas	6.8 litres
Tuning frequency		Fs	28.1Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
220	212	182	92	CW-2196	$39.95	$35.90	$31.90

10" Paper Cone Woofer

Specifications:		Re	5.41 Ohms
Power handling	225WRMS	Qms	1.01
Nominal impedance	8 Ohms	Qes	0.47
Frequency response	40Hz - 1kHz	Qts	0.32
Sensitivity	90dB SPL @1W, 1m	Vas	21.8 litres
Tuning frequency		Fs	59.8Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
258	245	235	110	CW-2198	$59.95	$53.95	$47.90

12" Paper Cone Woofer

Specifications:		Re	5 Ohms
Power handling	225WRMS	Qms	3.46
Nominal impedance	8 Ohms	Qes	0.40
Frequency response	28 - 550Hz	Qts	0.36
Sensitivity	90dB SPL @1W, 1m	Vas	57.6 litres
Tuning frequency		Fs	23.1Hz

1 YEAR WARRANTY

RESPONSE

A	B	C	D(mm)	Cat.	Qty 1+	Qty 4+	Qty 10+
311	294	281	142	CW-2199	$74.95	$67.50	$59.95

ALL PURPOSE REPLACEMENT SPEAKERS

27mm (1.1")
Mylar
8Ω
250 mW

Mylar cone.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3002	$2.95	$2.60	$2.30

57mm (2.25")
8Ω

As used in many projects
8Ω, 250mW
Round (no mounting holes).

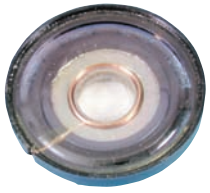
Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3000	$3.50	$3.15	$2.75

125mm (5")
4Ω, 6 Watts
Diagonal mounting holes 120mm.
3oz. magnet.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3010	$5.95	$5.25	$4.75

40mm (1.5")
Mylar
8Ω
250 mW

Mylar cone.



Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3004	$3.50	$3.15	$2.75

76mm (3")
8Ω

1 Watt. Round.
No mounting holes.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3006	$4.25	$3.75	$3.30

50 X 90mm (2" X 3.5")
- 8Ω, 5 Watt
- Magnetically screened

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3025	$6.95	$6.25	$5.50

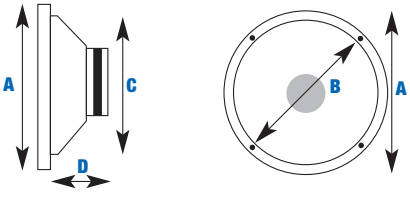
40MM 2W SILVER MYLAR CONE
As used in active MP3, iPod®s, laptops, etc speaker systems.
- 40(dia) x 20 (H)mm
- 4Ω, 2 Watts
- Clamp or glue mount

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3028	$8.95	$7.95	$6.95

100mm (4")
4Ω, 2 Watts
Diagonal mounting holes 115mm.

Cat.	Qty 1+	Qty 4+	Qty 10+
AS-3008	$4.75	$4.15	$3.75

SPEAKER DIMENSIONS



A = From one side to the other
B = Mounting holes - diagonal
C = Cut out in millimetres
D = Depth

FULL RANGE REPLACEMENT SPEAKERS

Shielded 1" 1W 8 Ohm Full Range Speaker

Full range speakers suitable for use in surround speakers in home theatre system, computer multimedia speakers and portable speaker designs. It has advanced alloy cone design coated with special damping material. See website for full specifications, frequency curves and technical drawings.

- Magnetically screened
- 4 x screw mounting holes
- Dimensions: 36(L) x 36(W) x 13.1(D)mm

General Data	
Nominal Power Handling (Pnom)(W)	1
Max Power Handling (Pmax)(W)	2
Sensitivity (2.83v/1m)(dB)	79
Weight (M)(Kg)	0.03

Electrical Data	
Nominal Impedance (Z)(O)	8
DC (Re)(O)	6.5

Voice Coil and Magnet Parameters	
VC Diameter (mm)	19
VC Length (H)(mm)	3.4
VC Former	CCAW
VC Frame	Kapton
Magnet Former	Neodymium
Force Factor (BL)(N/A)	2.3
Gap Height (He)(mm)	1.5
Linear Excursion (Xmax)(mm)	0.95

T-S Parameters	
Suspension Compliance (Cms)(uM/N)	626
Mechanical Q (Qms)	3.9
Electrical Q (Qes)	0.814
Total Q (Qts)	0.674
Moving Mass (Mms)(g)	0.56
Effective Piston Area (Sd)(m2)	0.0005
Equivalent Air Volume (Vas)(L)	0.04
Resonance Frequency (Fs)(Hz)	270

Size	Cat.	Qty 1+	Qty 4+	Qty 10+
1"	AS-3030	$8.95	$7.95	$6.95

Shielded 2" 10W 8 Ohm Full Range Speaker

Full range speakers suitable for use in surround speakers in home theatre system, computer multimedia speakers and portable speaker designs. It has advanced alloy cone design coated with special damping material. See website for full specifications, frequency curves and technical drawings.

- Magnetically screened
- 4 x screw mounting holes
- Dimensions: 53(L) x 53(W) x 30.5(D)mm

General Data	
Nominal Power Handling (Pnom)(W)	10
Max Power Handling (Pmax)(W)	20
Sensitivity (2.83v/1m)(dB)	78
Weight (M)(Kg)	0.12

Electrical Data	
Nominal Impedance (Z)(O)	8
DC (Re)(O)	6.5

Voice Coil and Magnet Parameters	
VC Diameter (mm)	25
VC Length (H)(mm)	6
VC Former	CCAW
VC Frame	Kapton
Magnet Former	Neodymium
Force Factor (BL)(N/A)	2.2
Gap Height (He)(mm)	3
Linear Excursion (Xmax)(mm)	1.5

T-S Parameters	
Suspension Compliance (Cms)(uM/N)	356
Mechanical Q (Qms)	4.6
Electrical Q (Qes)	2.2
Total Q (Qts)	1.56
Moving Mass (Mms)(g)	1.26
Effective Piston Area (Sd)(m2)	0.0013
Equivalent Air Volume (Vas)(L)	0.2
Resonance Frequency (Fs)(Hz)	260

Size	Cat.	Qty 1+	Qty 4+	Qty 10+
2"	AS-3032	$14.95	$13.35	$11.70

Shielded 3" 15W 8-Ohm Full Range Speaker

Full range speakers suitable for use in surround speakers in home theatre system, computer multimedia speakers and portable speaker designs. It has advanced alloy cone design coated with special damping material. See website for full specifications, frequency curves and technical drawings.

- Magnetically screened
- 4 x screw mounting holes
- Dimensions: 78(L) x 78(W) x 53(D)mm

General Data	
Nominal Power Handling (Pnom)(W)	15
Max Power Handling (Pmax)(W)	30
Sensitivity (2.83v/1m)(dB)	82
Weight (M)(Kg)	0.53

Electrical Data	
Nominal Impedance (Z)(O))	8
DC (Re)(O)	6.5

Voice Coil and Magnet Parameters	
VC Diameter (mm)	20
VC Length (H)(mm)	9
VC Former	Kapton
VC Frame	CCAW
Magnet Former	Ferrite
Force Factor (BL)(N/A)	3.06
Gap Height (He)(mm)	3
Linear Excursion (Xmax)(mm)	3

T-S Parameters	
Suspension Compliance (Cms)(uM/N)	920
Mechanical Q (Qms)	3.75
Electrical Q (Qes)	1.15
Total Q (Qts)	0.88
Moving Mass (Mms)(g)	2.6
Effective Piston Area (Sd)(m2)	0.003
Equivalent Air Volume (Vas)(L)	1.19
Resonance Frequency (Fs)(Hz)	100

Size	Cat.	Qty 1+	Qty 4+	Qty 10+
3"	AS-3034	$19.95	$17.70	$15.70

Speaker Accessories

REPLACEMENT SPEAKER

8" Twincone 8 Ohm PA Speaker

This 200mm driver has a black cardboard cone, high efficiency and is ideal as an extension speaker or low level sound reinforcement. No box volumes given as this driver would mainly be used as a ceiling extension speaker. It also has mounting holes for a line transformer.

Specifications for a typical Sealed Box Application	
Box volume (litres):	19.08 Litres
-3dB frequency (Hz):	54Hz
Inside cabinet dimensions:	220(W) x 320(D) x 270(H)mm
Nom impedance:	8 ohms
Power handling:	10WRMS
Frequency range:	96Hz - 17kHz
Sensitivity:	91dB 1Watt 1metre.
Voice coil resistance (Re):	7.2Ω
Resonant frequency (fs):	96Hz
Mechanical Q factor (Qms):	10.53
Electrical Q factor (Qes):	3.00
Total Q factor (Qts):	2.341
Equivalent volume (Vas):	19.2Litres
Cone area (sq metres):	0.0213

A	B	C	Dmm	Cat.	Qty 1+	Qty 4+	Qty 10+
206	195	180	75	CE-2325	$19.95	$17.70	$15.70

DIY CROSSOVERS

Crossover Inductors

Power: All inductors shown have the wire gauge capacity to handle at least 100 Watts RMS with very little copper loss. See capacitor section for crossover capacitors.

- See our website for a guide to making speaker crossovers.

(L)	DCR(Ω)	WireØmm	Core	Cat.	Qty 1+	Qty 5+	Qty 10+
0.05mH	0.25	0.8	Air	LF-1306	$5.95	$4.15	$3.45
0.1mH	0.28	0.8	Air	LF-1308	$5.95	$4.15	$3.45
0.22mH	0.3	0.8	Air	LF-1310	$6.95	$4.75	$4.15
0.33mH	0.37	0.8	Air	LF-1312	$7.45	$4.95	$4.45
0.39mH	0.41	0.8	Air	LF-1314	$7.95	$5.50	$4.75
0.47mH	0.47	0.8	Air	LF-1316	$9.95	$6.75	$5.75
0.56mH	0.52	0.8	Air	LF-1318	$11.95	$8.25	$6.95
0.82mH	0.66	0.8	Air	LF-1320	$13.95	$9.75	$8.25
1.0mH	0.74	0.8	Air	LF-1322	$14.95	$10.35	$8.75
1.8mH	1.05	0.8	Air	LF-1326	$15.95	$10.95	$9.50
2.7mH	1.31	0.8	Air	LF-1330	$18.95	$12.95	$11.35
3.0mH	1.36	0.8	Air	LF-1332	$19.95	$13.70	$11.70
5.6mH	0.5	1.0	Bar	LF-1334	$22.95	$15.95	$13.70
9.0mH	0.95	0.8	Bar	LF-1336	$24.95	$17.35	$14.70

RELATED PRODUCT...

Looking for our CROSSOVER DESIGN CHART? Check the Primers section on our website.

SPEAKER GRILLES

Speaker Ceiling Grilles

These grilles will suit our 4" speaker and our 8" 10 Watt speaker.

- White in colour.

		Cat.	Qty 1+	Qty 5+	Qty 10+
4"	Each	AX-3550	$4.95	$4.45	$3.90
8"	Each	AX-3560	$6.95	$6.25	$5.50

Metal Speaker Protection Grilles with Clips

Made from strong perforated steel, these quality grilles are designed to protect Hi-Fi or PA speakers in cabinets, cars, etc. Eight sizes to choose from, each supplied with clips to firmly mount grilles to speaker boxes.

		Cat.	Qty 1+	Qty 5+	Qty 10+
4" Speaker	Each	AX-3590	$4.00	$3.60	$3.15
5" Speaker	Each	AX-3591	$5.00	$4.45	$3.95
6" Speaker	Each	AX-3592	$6.00	$5.25	$4.75
6.5" Speaker	Each	AX-3593	$6.50	$5.75	$4.95
8" Speaker	Each	AX-3594	$8.00	$6.95	$6.25
10" Speaker	Each	AX-3595	$9.00	$7.95	$6.95
15" Speaker	Each	AX-3598	$12.00	$10.70	$9.50

Small Mini Size Speaker Grille Clips

Plug and socket arrangement to firmly hold the grille in place on home wooden cabinet type speakers.

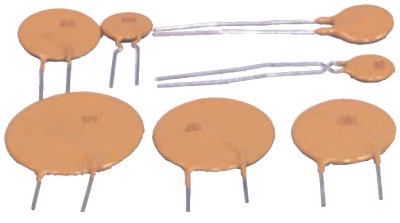
Easy to use - simply drill the hole and push in. Male part requires 4.5mm diameter hole and 5mm deep. Female requires 10mm diameter hole by 15.5mm deep.

- Set of 4 pairs supplied enough for one speaker box.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pkt 4	CF-2761	$4.95	$4.45	$3.90

SPEAKER PROTECTION

Polyswitches - Speaker Protection



Low cost speaker protection.
More specifications ensure accurate choice for better protection. Polyswitches will protect against electrical (current) overload and will protect speakers in most situations. They are not fullproof and will not protect against mechanical overload. Select the device based on its trip (power rating W), eg. if you need to protect a tweeter that will handle 10 Watts RMS and it's rated at 8 Ohms you would select an RXE075 device. If in doubt, be conservative. Some experimentation may be necessary since music signals can vary a great deal. Simply connect in series with the speakers you wish to protect. See primers section of website for more technical info.

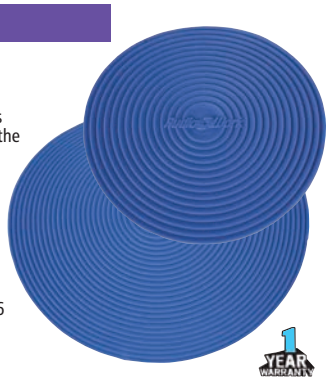
How they work. Polyswitch protectors are based on conductive polymers and act like resettable solid state circuit breakers. When the operating current of the protector is exceeded the interior of the device partially melts, which suddenly increases the volume which increases the resistance drastically. This in turn reduces the current. The device stays in this state while the current is maintained because its temperature is elevated. Once the current is removed, the device re-establishes itself almost immediately, so that the low resistance value is restored.
Voltage ratings RN3460/62 - 60 volts; the rest are 50 volts.

Cat.	Part No	Trip Watts 4Ω	Trip Watts 6Ω	Trip Watts 8Ω	Trip Current Amps
RN-3460	RXE075	5.1	7.7	10.2	1.50
RN-3462	RXE090	7.3	10.9	14.6	1.8
RN-3464	RXE110	10.9	16.3	21.8	2.2
RN-3466	RXE160	23.0	34.6	46.1	3.2
RN-3468	RXE185	31.4	47.0	62.7	3.7
RN-3470	RXE250	56.3	84.4	112.5	5.0

Part No.	Cat.	Qty 1+	Qty 10+	Qty 25+
RXE075	RN-3460	$2.95	$2.60	$2.30
RXE090	RN-3462	$3.25	$2.90	$2.60
RXE110	RN-3464	$3.50	$3.15	$2.75
RXE160	RN-3466	$3.95	$3.45	$3.15
RXE185	RN-3468	$3.95	$3.45	$3.15
RXE250	RN-3470	$4.50	$3.95	$3.60

SPEAKER ACCESSORIES

Sound Dampening Pads



Mainly designed for car audio, but could be used in any speaker application. These pads are installed inside the door skins opposite the back of the speaker drivers. They absorb standing waves and resonances so you get maximum performance. Each pack includes cyanoacrylate glue for installation.

Sound Dampening Pad 7" - Pair AX-3665
- Suitable for 5 - 7" speakers

Sound Dampening Pad 12" - Single AX-3666
- Suitable for subs 10 - 15"

1 YEAR WARRANTY

	Cat.	Qty 1+
7" Pads - Pair	AX-3665	$19.95
12" Pad - Single	AX-3666	$19.95

Butyl Based Sound Deadening Material

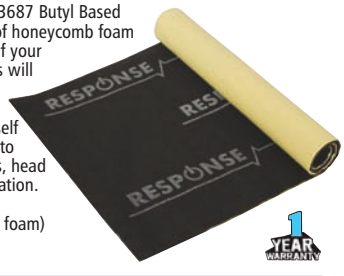
Give your vibrating buzz-box a luxury car ride with this butyl-based, foil backed sound deadening material. By adding weight to the metal panels of your car, such as door skins, boot lids, quarter panels, etc, you can stop nasty vibrations, reduce road noise, and give your doors and boot a nice solid "thud" when they shut. Each sheet is self-adhesive, and can be easily moulded, cut and stuck onto virtually any metal surface of your vehicle's body, giving you a pleasant, quiet and comfortable ride. Combine with our AX-3662 Sound Absorbing foam to add thermal insulation and eliminate low frequency humming from big exhaust systems for an even more comfortable vehicle interior.

- Thickness: 1.5mm
- Temperature range: -10 - 110°C
- Size: 900 x 330mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AX-3687	$29.95	$26.90	$23.70

Combination Butyl/Foam Super Sound Deadener



Combining both the sound deadening properties of butyl material, and insulating properties of honeycomb foam, this is an easy single application solution for complete sound deadening and isolation that also offers thermal insulation. Consisting of a layer of our AX-3687 Butyl Based sound deadener and a 3.0mm thick layer of honeycomb foam (similar to our AX-3662), lining the cabin of your vehicle with these sound deadening sheets will give you drastically reduced road noise, less panel vibration and a cooler cabin temperature. Application is easy with the self adhesive backing and the ability to mould to the shape of the panel. Ideal for door skins, head linings, door cards and under bonnet insulation.

- Thickness: 4.5mm (1.5mm butyl, 3.0mm foam)
- Temperature range: -10 - 100°C
- Size: 660 x 330mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AX-3689	$29.95	$26.90	$23.70

Speaker Attenuator - 70W

Attenuates the audio signal by 46dB on an 8-Ohm system.

- Graduated in 12 steps
- Stereo
- Accepts 16 to 22 gauge wire / Screw terminal termination
- Includes wall plate
- Cut-out measures 33 x 67mm
- 62mm mounting depth from finished wall required
- Wiring diagram supplied

NEW LOWER PRICE

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AC-1685	$34.95	$31.45	$27.90

Speaker Attenuator - 100W

A neat and functional solution for controlling the sound level in your multi-room audio speaker installation. The attenuator has 12 step level and fits in a single gang wallplate mount. It allows connection of up to 8 pairs of speakers to one stereo amplifier while maintaining correct impedance match between amp and speakers.

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1665	$59.95	$53.95	$47.90

2 Way Speaker Selector Switch

This switch allows two pairs of speakers to be run from an amplifier with only one set of outputs, or two pairs of speakers from the one speaker cable. Listen to either pair of speakers separately, or both on together.

- Simple screw terminals accept speaker cabling.
- Supplied in a plastic case with rubber feet.
- Size 160(W) x 100(D) x 40(H)mm.
- Designed for 8 Ohm speakers.
- Power handling 50WRMS max per channel.

2 Way	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1640	$19.95	$17.70	$15.70

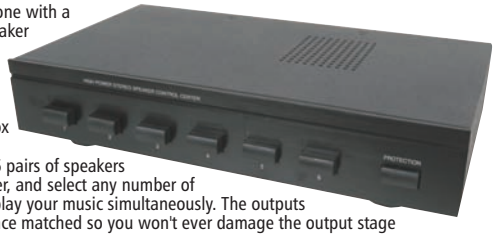
5 Way Speaker Selector Switch

A home entertainment switch box that allows up to five pairs of stereo speakers to be connected to a Hi-Fi system through a single stereo output terminal. Each pair of speakers may be individually turned on or off in any combination. Also features a separate headphone output socket.

- Add 5 sets of speakers

5 Way	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1643	$39.95	$35.90	$31.90

6 Way Speaker Selector Switch



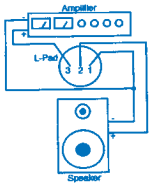
This speaker selector box is perfect for anyone with a multi-room speaker system that they want to run from a master source. This selector box allows you to connect up to 6 pairs of speakers to your amplifier, and select any number of those pairs to play your music simultaneously. The outputs are all impedance matched so you won't ever damage the output stage of your amplifier.

- Solid metal construction
- Compatible with amplifiers up to 150 watts per channel
- Terminals accept up to 14-gauge wire
- Built-in protection circuit
- Dimensions: 285(W) x 180(D) x 55(H)mm

1 YEAR WARRANTY

6 Way	Cat.	Qty 1+	Qty 4+	Qty 10+
	AC-1683	$149.00	$133.95	$118.95

50 Watt RMS Fader (L-Pads)



Ideal for controlling the volume of extension speakers, where they are in another room or location from the amplifier. Can be mounted in-line, or even in the speaker box itself. It has a constant impedance design suited to 8Ω systems.

- Supplied with plastic face plate.
- Rated at 50W RMS.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Mono	AC-1672	$22.95	$20.35	$18.35

GIFT CARD

Can't find what to buy? Give a Jaycar Gift card and let them choose!

Speaker Mounting Hardware

SPEAKER BRACKETS & STANDS

Speaker Bracket & Stands

This universal speaker mount is ideal for surround style speakers and home theatre applications. Compatible with many major brands of speakers it can be used for both ceiling and wall mounting. Features four axis, tilt and rotation adjustments. Extension and keyhole adaptors included. Designed for mounting small speakers up to 5kg (2kg if using the post mount option). Available individually or in a pack of two.

	Cat.	Qty 1+	Qty 5+	Qty 10+
1 Bracket	CW-2808	$11.95	$10.70	$9.50
2 Brackets	CW-2809	$19.95	$17.70	$15.70

Speaker Wall Brackets

Ideal for mounting home cinema effects speakers.

- Made from high grade glass reinforced nylon for durability
- Suits small to medium speakers up to 5kgs (11 pounds)
- Fully adjustable in all directions
- Supplied with a comprehensive range of fasteners for a variety of speaker types
- Black in colour
- Sold as a pair

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair	CW-2820	$24.95	$22.35	$19.70

Mini Universal Speaker Brackets

Well designed, made of super strong ABS plastic, this attractive two-piece swivel bracket is easy to install and adjust (Phillips head screwdriver required). Primarily designed for mounting small / medium sized speakers for surround sound setups, it could be used for mounting security lights, CCD cameras etc.

- Angle variation: Vertical 45°
- Horizontal >180°
- Wall mount section dimensions: 46(W) x 93(H) x 61(D) mm
- Speaker mount dimensions: 41(W) x 83(H) x 61(D)mm
- Distance from speaker to wall: 80mm
- Two pieces supplied, one per speaker.
- Will hold up to 7.5kg

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair	CW-2804	$24.75	$21.95	$19.70

Fixed Arm Wall Bracket for Top Hat Mount PA Speakers

Top hat mount PA speakers mount easily on these heavy duty wall brackets. Each has a 25kg weight capacity and functionally swivel left and right as well as tilt 45° down; making them perfect for public venues such as school halls. pubs and clubs.

- Dimenions: 119(W) x 200(H)mm
- Mounting arm: 290(L)m.

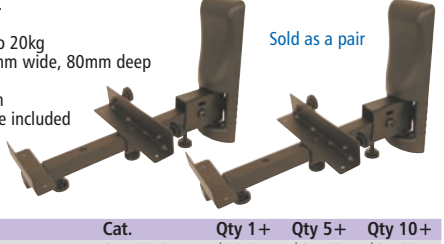
	Cat.	Qty 1+	Qty 5+	Qty 10+
Fixed Arm - Each	CW-2801	$14.95	$13.35	$11.70

Adjustable Wall Speaker Bracket

If your listening room is a bit short on real estate, the answer may be to mount your speakers on the wall with a set of brackets. These brackets can be adjusted horizontally, vertically to tilt up to 20° or to fit speakers up to a depth of 370mm and as small as 80mm. Ideal for conference rooms, AV rooms, studios or small rooms where space is limited. Supplied as a pair.

- Each bracket holds up to 20kg
- Fits speakers from 150mm wide, 80mm deep
- All steel construction
- Black powder coat finish
- All fittings and hardware included

Sold as a pair



	Cat.	Qty 1+	Qty 5+	Qty 10+
Pair	CW-2840	$39.95	$35.90	$31.90

Ceiling / Wall Speaker Bracket - Steel

This sturdy bracket has main axis angle adjustment by a diecast, toothed plate secured by a wing nut. The detents won't slip as can happen with ball types. Minor axis adjustment is by a handwheel with backup by lock screw. As a safety measure a steel wire lanyard easily secures the two halves of the bracket - a good safety feature that is common in professional P.A Installations. The wall plate has holes for 4 x 6mm (or 1/4") screws. Another hole is provided for speaker wire egress. The speaker mounting plate has 4 x 4mm holes and also two slotted holes.

- Sold individually

Specifications	
Max Speaker box weight	10kg
Angle Variation	Main - over 180°
	Minor - 360°
Wall mount plate	100(W) x 105(H) mm
Speaker mount plate	80(W) x 45(H) mm
Distance from speaker to wall	135mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	CW-2841	$22.95	$20.35	$18.35

MORE INFORMATION...

See page 445 for our range of AV wall brackets

Extra Heavy Duty Speaker Tripod Stand

This rugged stand extends to just under 2 metres and will support speakers, combo amps or lighting rigs up to and around 45 kilos. Tough rubber feet are mounted under each tripod leg for safe, non-slip support and there's even a steel stopper-rod which inserts into the extension shaft, preventing heavily weighted equipment from sliding the shaft back into the base. The speaker base itself includes both slotted and standard mounting holes to suit a wide range of PA related equipment. Made from strong aircraft grade aluminium for easy transportation & long service life.

- Support base max 1110mm.
- Use with our top hat HS-8035.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	CW-2860	$99.00	$88.95	$78.95

Speaker Box Stand Adaptor "Top Hat"

This nifty bracket mounts inside the speaker box and accepts the standard PA type speaker stand. The advantages of inside mounting are obvious to those in the business - no unruly brackets sticking out of the bottom or sides of speaker bins to scratch equipment, and make packing up difficult.
The bracket is made of high grade steel and black powder coated.

- It is the standard length - approx 100mm
- Round 115mm flange for mounting with 4 screw holes.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8035	$14.95	$13.35	$11.70

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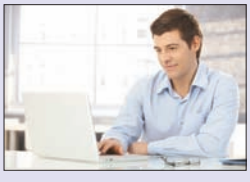


SPEAKER/EQUIPMENT CABINET FITTINGS

Strap Handle

Incorporates metal sections on each end which hold the handle, and the rubber strap part returns flat after use. Total length 255mm x 27mm.

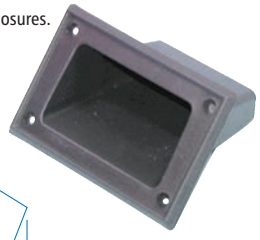
- Strap is steel reinforced.
- 2 x 8-10g screws required.

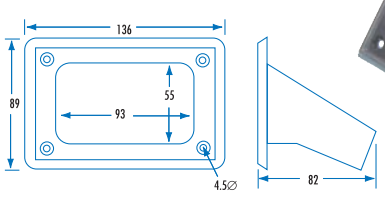
	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8022	$5.95	$5.25	$4.75

Pocket Handle

Suitable for chipboard speaker cabinets or metal enclosures.

- Panel cutout 102 x 48mm.
- 4 x 8-10g screws required.



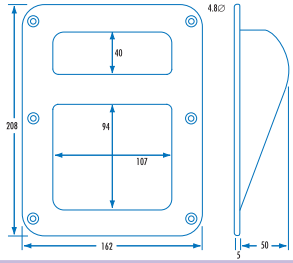


	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8012	$3.95	$3.45	$3.15

Cabinet Handle

If you are having trouble lifting speaker cabinets, PA bins, or any large box, try these handles. They are easy to fit and make lifting a breeze.

- Just cut hole, drill holes and screw in.
- Dimensions 165(W) x 210(L)mm
- Cutout size 122mm x 164mm.
- 6 x 8-10g screws required

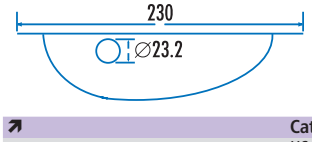


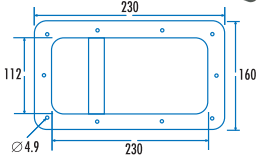
	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8010	$6.95	$6.25	$5.50

Large Steel Cabinet Handle

Use these heavy duty handles to assist in transporting large speaker boxes and similar PA equipment.

- Requires a cutout 240mm(H) x 120(W)mm with a depth of 63mm.
- Actual size 230(H) x 160(W) x 63(D)mm.
- Handle diameter 25.5mm, black powdercoat finish.
- Great for quad boxes, foldback monitors and guitar amplifiers etc.
- 10 x 8-10g screws required.



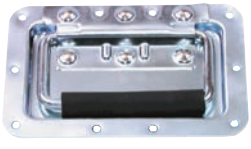


	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8008	$9.95	$8.75	$7.75

Metal Cabinet Handles

Quality plated steel cabinet handle. Recessed handle with black rubber grip and spring return.

- Cutout size 128 x 74mm.
- Available in black and silver.
- 10 x 8-10g screws required.



	Cat.	Qty 1+	Qty 5+	Qty 10+
Silver	HS-8015	$9.95	$8.75	$7.75
Black	HS-8016	$9.95	$8.75	$7.75

Metal Speaker Plate

This blank plate is pressed out of black painted 1mm mild steel and has many uses. It can be used as an inspection cover or can be easily drilled to accept panel hardware such as speaker terminals, phone jacks, etc.

- Panel cutout: 112(W) x 65 (H)mm.
- Overall size: 136(W) x 89 (H)mm.
- 6 x 8 -10g screws required.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	HS-8031	$4.95	$4.45	$3.90

Metal Corner Protectors

Pack of 8

Keep the corners of your PA bins or party speakers undamaged. Just screw these on to your speakers and start throwing them around! All solid 1mm thick steel, black colour. Curved (10mm radius) for rounded edge boxes, amps, speaker cabinets, etc.

- Ideal for carpet or vinyl covered gear.
- Each leg extends 40mm from corner in 3 directions
- Legs punched at ends with 4.3mm hole for round head screw fixing
- No bump.
- 3 x 8-10g pan head screws required

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pkt 8	HM-3843	$9.95	$8.75	$7.75

Plastic Locking Corner Piece

Pack of 8

Heavy duty plastic moulded corner fitting featuring male/female inserts. These are designed to fit together so that pieces of equipment (the same size) can be stacked up and locked together.

- Ideal for stacking speaker boxes
- Has 4 x 4mm pan head fixing holes
- Dimensions 84(H) x 50mm each side

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pkt 8	HM-3829	$7.95	$6.95	$6.25

Speaker Cabinet Spikes

Pack of 4

Mount these adjustable spikes on the base of your speaker cabinets and enjoy not only better sound, but far greater stability, especially on carpeted floors. Supplied in a set for one speaker box, which includes:

- 4 adjustable spikes (spike length 25mm)
- 4 locking nuts
- 4 cabinet threads with hex head
- 4 floor protectors for wooden floors.

Note: 1 box only, 2 sets required for stereo.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Pkt 4	HS-8002	$12.95	$11.35	$10.35

Quality Equipment Feet

You have probably seen new up market Hi-Fi equipment with large round feet - they give the piece of equipment a high class look. Well, now you can do it to your own gear. They are made of black rubber, with a silver metal edge on the bottom. They mount with a screw and nut (not supplied).

- Size - dia 43mm, height 13mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	HP-0834	$2.95	$2.60	$2.30

Fuzzy Pickle

Makers Name: Beau Young
Location: Queensland

A guitar pedal I created from a Frankenstinien combination of already accessible fuzz effects schematics. I've built guitar pedals before but this was the first time I went out on my own to experiment with what I had previously learnt. The fuzz pedal is a type of distortion effect that can be applied into a guitar/amp signal chain.

For more details scan the QR code or go to www.jaycar.com.au/makers

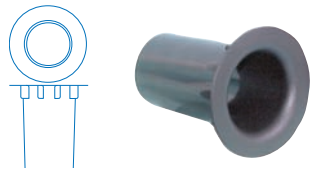
Speaker Sound Proofing

SPEAKER/EQUIPMENT CABINET FITTINGS

Speaker Box Ports

FLARED

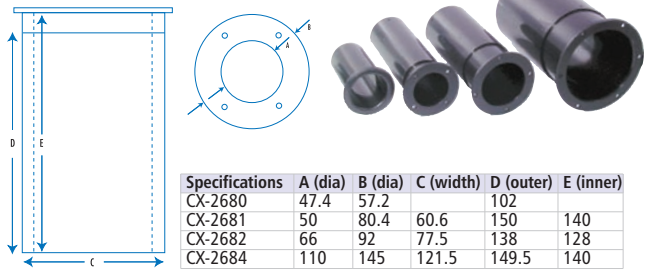
These ports are flared to minimise air turbulence. They can be press fitted to the cabinet then sealed with caulk or silastic.
Inner Dia: 58mm
Length: 120mm



	Cat.	Qty 1+	Qty 5+	Qty 10+
	CX-2688	$4.95	$4.45	$3.90

ADJUSTABLE

Tubes suitable for bass reflex enclosures.



Specifications	A (dia)	B (dia)	C (width)	D (outer)	E (inner)
CX-2680	47.4	57.2		102	
CX-2681	50	80.4	60.6	150	140
CX-2682	66	92	77.5	138	128
CX-2684	110	145	121.5	149.5	140

Cat. CX-2680 Inner Diameter 50mm Length 100mm
Cat. CX-2681 Inner Diameter 50mm Adjustable Length 150 to 280mm
Cat. CX-2682 Inner Diameter 66mm Adjustable Length 140 to 265mm
Cat. CX-2684 Inner Diameter 110mm Adjustable Length 160 to 280mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Inner Diameter 50mm	CX-2680	$5.20	$4.60	$4.15
Inner Diameter 50mm	CX-2681	$6.25	$5.50	$4.95
Inner Diameter 66mm	CX-2682	$7.50	$6.75	$5.95
Inner Diameter 110mm	CX-2684	$13.95	$12.35	$10.95

Speaker Carpet

GREY

This light duty speaker carpet is ideal for parcel trays and sub boxes, the light grey colour is a good match for most car interiors. Can be easily worked around corners, edges etc.

- Size is 1m x 1.4m x 2mm

Cat. CF-2757

BLACK

This heavy duty black carpet is designed for use on PA speaker bins or car subwoofer boxes.

- Size is 1m x 1.8m x 3mm

Cat. CF-2755

	Cat.	Qty 1+	Qty 5+	Qty 10+
	CF-2755	$37.50	$33.90	$29.95
	CF-2757	$24.50	$21.95	$19.35

Spray-On Contact Adhesive

This pressure-sensitive contact adhesive is in an aerosol can, and bonds to paper, fabric, leather, rubber, foam, vinyl, concrete, metal, in fact almost any surface! No more spills and dribbles from a tube, or sticky screwdrivers (and plastic applicators) from applying glue to a surface. Great for laying innerbond and speaker carpet in/on speaker cabinets etc.

- Size 400g.
- Cannot be sent by air freight or post.

MADE IN AUSTRALIA

	Cat.	Qty 1+	Qty 4+	Qty 10+
	NA-1504	$16.95	$14.95	$13.35

Grill Cloth

High quality, acoustically transparent grill cloth is ideal for protecting expensive drivers and allowing all of the sound to get through.

- Supplied in a 1.5 x 1m pack.
- Black in colour

	Cat.	Qty 1+	Qty 5+	Qty 10+
	CF-2752	$17.50	$15.70	$13.95

Hook and Loop Tape

Ideal for holding grilles on speaker cabinets. One side is glued or stapled to the box & the other to the grille. The grille then sticks to the box.

- Ideal for many uses.
- 300mm long.

	Cat.	Qty 1+	Qty 5+	Qty 10+
	CF-2763	$2.95	$2.60	$2.30

SPEAKER CABINET & SOUNDPROOFING

Acoustic Sound Absorbing Tiles

25MM TILE (300 X 300MM)
MATING MALE/FEMALE (2 TILES)

38mm tile shown as supplied finish

TECH TIP!

Factory coloured finish available on order (minimum quantities apply) Sizes for these are different to the grey ones stocked Size: 457 x 457 x 25mm or 457 x 457 x 38mm

This range of scientifically designed polyester urethane tiles are ideal for many acoustic treatment applications like standing waves, flutter and slap echo within a room. They are not suitable for sound attenuation, but rather for acoustic treatment within a room.

Applications include:
- Recording studios
- Schools/Colleges
- Radio/TV broadcasting
- Home cinema
- Standing acoustic wave problems
- Tuning rooms for acoustic performance
- Anechoic chambers

RELATED PRODUCT...

See page 226 for Sound Dampening Material for Cars.

This material is available in two thicknesses; 25mm and 38mm. The 25mm is very economical and will suit most applications especially domestic where price is a major consideration. The 38mm product has far greater absorption and is better for professional or serious acoustic applications. The tiles come as a mating male/female pair. Each tile is 300 x 300mm and has a slight bevelled edge which produces a pleasing effect when the tiles are laid. The tiles are made from fire retardant polyester urethane #R- 200- U. They can be spray painted and do not sag in any position. They can be attached to virtually any clean, dry, stable surface with double sided adhesive foam tape or virtually any type of contact type adhesive. As you can see they have an attractive appearance when suitably painted.

AX-3652 Acoustic Tiles 300 x 300 x 25mm Pk2
AX-3656 Acoustic Tiles 300 x 300 x 38mm Pk2

NESTED MALE/FEMALE (2 TILES)

	(L)	(W)	(D)mm	Cat.	Qty 1+	Qty 5+	Qty 10+
	300	300	25	AX-3652	$29.95	$26.90	$23.70
	300	300	38	AX-3656	$32.95	$29.45	$26.45

650gsm Acrylic Speaker Damping Material

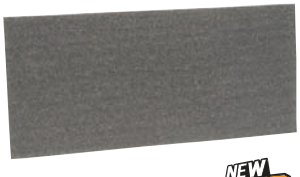
Used to line speaker boxes for standing wave/resonance absorption. Also very effective for making acoustic treatment like bass traps in sound rooms and studios.

- High density
- 700(W) x 1000(L) mm
- White in colour

	Cat.	Qty 1+	Qty 5+	Qty 10+
	AX-3694	$12.50	$10.95	$9.95

Sound Absorption Mat for Equipment

The noise of modern equipment can really annoy end users. To solve this we have sourced this high quality sound absorption material which is quick and easy to install. The honeycomb material is chosen specifically due to its ability to reduce fan noise, vibrations, compressors and motors. Cooling fans in equipment is a particular annoyance to users and this material is perfect for reducing sound levels!With its self adhesive backing, just cut to size stick on the inside of your equipment & installation is completed. No mess or fuss. Made to UL94-VO flammability classification.



NEW LOWER PRICE

- Size: 140 x 180mm, 2 sheets per pack.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AX-3660	$14.95	$13.35	$11.70

PARTY LIGHTING - MANUAL CONTROL

3W CREE® LED Mini Spotlights

These ultra compact mini LED spotlights offer a super bright precision beam. Ideal for fixed lighting applications in retail stores, art halls or museums to illuminate and decorate. The mounting bracket makes these units also suitable for stage lighting at parties or used on a rotating mirror ball. A truly versatile and cost effective lighting solution available in two colours.

- Mains 240V powered
- Dimensions: 56(Dia.) x 97(L)mm

Two models available:
3W CREE® WHITE LED SL-3470
3W CREE® BLUE LED SL-3471

		Cat.	Qty 1+	Qty 5+	Qty 10+
White	3W LED	SL-3470	$34.95	$31.45	$27.90
Blue	3W LED	SL-3471	$34.95	$31.45	$27.90

Rotating Disco Ball with LED Spotlights

Create an amazing light show by hanging these lights on the ceiling to get the desired mood on your next party. Turn on and dance the night away with this brilliant mirror ball and LED spotlights station. It features an automatic rotating mirror ball, two adjustable angle spotlights with 6 red, green and blue LEDs each. It also has an additional 4 red and blue LEDs on the base for maximum effect.

- Mains power adaptor included.
- Dimensions: 26(L) x 13(W) x 23(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2916	$39.95	$35.90	$31.90

Party Light Set

Liven up your next party with this professional lighting set. Containing everything you need to create your own dance party setup, this kit contains a 20cm (8") mirror ball with a 240V AC, 1 RPM motor to run it, pinspot light and stand, PAR 36 bulb and 4 different coloured filters (red, amber, green and blue). Easy to operate, this kit will make your next party sensational.

Party pack contains:
- 20cm (8") mirror ball
- Mirror ball motor (240VAC) 1 RPM
- PAR 36 spotlight (240VAC)
- PAR 36 spotlight (6V)
- 4 x coloured filters for spotlight (colours: red, amber, green and blue)

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2978	$69.95	$62.95	$55.95

LED Linkable Party Lights with Controller

Turn a lifeless party into an exciting one with these linkable blue, amber and red LED party lights. They have a built-in sound modulator that allows for the lights to switch in time with the beat. Microphone sensitivity and light chaser speed functions are fully adjustable. Units are mains powered, easy to operate and designed to last. Two models available:

3 LED LINKABLE PARTY LIGHT SET
- Dimensions: 14(L) x 13(W) x 48(H)mm

Cat. SL-2911

6 LED LINKABLE PARTY LIGHT SET
- Dimensions: 35(L) x 13(W) x 36(H)mm

Cat. SL-2913

	Cat.	Qty 1+	Qty 5+	Qty 10+
3 LED Set	SL-2911	$49.95	$44.90	$39.90
6 LED Set	SL-2913	$79.95	$71.95	$63.95

4 Colour Light Chaser - Sound Modulated

This light chaser uses a simple, but very effective design. It has a built in sound modulator which flashes the lights in tune with the beat. It is a mains powered unit, housed in a strong metal case. The four globes are switched on and off sequentially. The speed is controlled by an internal sound modulator, with a small microphone built-in to detect the music. It measures 435(W) x 105(H) x 185(D)mm, includes a mounting bracket, and 800mm mains lead. It uses 240V 60W ES reflector lamps, and is supplied with a red, yellow, green, and blue globe.

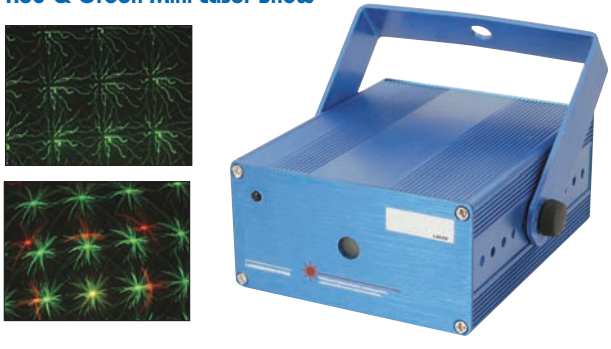
Spare globes:

Orange	Cat. SL-2953
Purple	Cat. SL-2954
Red	Cat. SL-2955
Green	Cat. SL-2956
Blue	Cat. SL-2957
Yellow	Cat. SL-2958

	Cat.	Qty 1+	Qty 5+	Qty 10+
Chaser	SL-2942	$79.95	$71.95	$63.95
Spare Globes - all colours - each		$9.95	$8.75	$7.75

LASER LIGHTS

Red & Green Mini Laser Show



Basic economy model provides red and green twinkle laser light display. Sound activated, auto or remote control with variable modulation. Manually controlled only.

- Control mode: Sound active, auto, remote control
- Mains operated from 9-12VDC plug pack (included)
- Dimensions: 270(L) x 215(W) x 115(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
Red & Green Mini Light Show	SL-3439	$119.00	$106.95	$94.95

Party / Concert Lighting

LASER LIGHTS (CONTINUED)

Red/Green Mini Laser Light Show with RGB LED

NEW 2013

A mini laser light show that doesn't skimp on features. It includes a full colour RGB LED that adds vibrancy and substance to each laser pattern by cycling through various colours with each show. With the remote control you can cycle through patterns, modes, switch between red or green lasers, adjust the speed and more. It also has a microphone so when positioned near a speaker in auto mode the display will change in sync with the music.

A built in bracket and tripod with flexible legs is included for mounting onto AV gear or for simply standing on a desk.

An easy to use laser light show great for restaurants, foyers, or parties.

Specifications	
Light modes	Static, rotate clockwise/ counter-clockwise, blink
Control modes	Sound activated/automatic
Patterns	Star-field, flowers, rotating parallel dots, quasars, alternating dots, star-shapes
Power supply	240VAC, 50Hz
Dimensions	140(L) x 105(W) x 55(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3453	$129.00	$115.95	$102.95

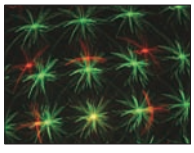
Small Red/Green Laser Light Show

NEW 2013

A small and simple Red/Green laser light show for adding colourful ambience to a room.

Includes a mounting bracket and flexible tripod stand (that's also great for camera mounting!).

The remote control can adjust the mode, pattern, speed, and lets you switch between red/green/both colours.



Specifications	
Patterns	Dots, joining dots, exploding dots, tron dots
Modes	Fast, slow, medium
Power supply	240VAC 50Hz
Dimensions	365(W) x 145(D) x 70(H)mm

1 YEAR WARRANTY

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3455	$99.00	$88.95	$78.95

STAGE LIGHTING

Multicoloured LED Party or Stage Lighting Kit with Stand & Controller

Liven up your next party or stage performance with this slim line stage lighting kit, which features 4 extremely thin LED PAR lights with a stand truss extendable up to 1.8m, 3 modes of operation including DMX, Master/Slave and sound activation, RGB colour mixing and advanced LED technology. Each PAR CAN unit has 145 bright red, green and blue LEDs, and are fully adjustable for wide area projection for large areas. Control manually using the supplied foot controller or by the 13 channel DMX control compatibility, making it suitable for professional or stage applications. Includes a light and stand carry bag so it can all be neatly packed away for easy transportation. Perfect lighting equipment for mobile entertainment purposes.

- 145 LEDs per PAR CAN
- DMX Channel: 13
- 3 modes of operation: DMX, Master/Slave and sound active
- Power supply: 240V 50Hz
- Power consumption: 120W

Dimensions
- Folding truss size: 1.2m wide
- Stand: Extends from 1.2m up to 1.8m
- Light carry bag: 700(L) x 390(W) x 200(H)mm
- Stand carry bag: 1.2m long

1 YEAR WARRANTY

Handy carry cases

Extends up to 1.8 metres

Foot controls

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3467	$399.00	$359.00	$319.00

PARTY LIGHTING - MANUAL CONTROL (CONTINUED)

RGB LED Rotating Disco Light

A compact sound activated RGB LED party light that will help to create a fantastic atmosphere for any special event or occasions. It can be operated automatically to create very bright coloured patterns in red, green and blue with 61 LEDs.

Highly portable and durable this party starter is great for mobile or permanent installations.

Specifications	
Mains supply	240VAC
Power consumption	10W
Dimensions	200(L) x 108(W) x 160(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3441	$79.95	$71.95	$63.95

3W RGB LED Spotlight - PAR 64

A compact and lightweight par 64 addition to your stage or lighting setup that uses 36 x 3 watt LEDs and very low power consumption. The RGB colour mix is produced using a combination of 12 red, 12 green and 12 blue LEDs. It can be controlled by any DMX controller or will also function in stand alone mode, offering a great range of colour mixing possibilities for various lighting effects. Features very easy to use menu system with auto run, sound or DMX 512 master/slave control.

Specifications	
Mains Supply	240VAC
Power consumption	120W
Dimensions	255(L) x 255(W) x 365(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3421	$199.00	$178.95	$158.95

1W RGB LED IP65 Spotlight - PAR 64

A fantastic IP65 rated weatherproof PAR 64 stage light suitable for indoor or outdoor set ups. Low power and lightweight, it has a built in temperature control system to prevent the high powered 36 x 1 watt LEDs (12 red, 12 green and 12 blue) from over heating. It can be set to display automatically preset programs or interfaced to a DMX controller for full lighting control. Great for stage lighting, parties or dj set ups.

- Mains supply: 240VAC
- Power consumption: 45W
- Waterproof rate: IP65
- Dimensions: 235(L) x 165(W) x 300(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3468	$269.00	$245.00	$219.00

PARTY LIGHTS & SPOTLIGHTS - DMX CONTROLLED

10W RGB DMX LED Star Ball

NEW 2013

A compact and more effective alternative to a standard Mirror Ball system. It has a powerful 10W Red, green and Blue LED which creates amazing visuals and lighting effect. This LED star ball can be roof or desk mounted, watch as lights swirl and change colours with the beat of the music. It can also be connected to a DMX512 light controller.

- Great for club, night clubs, bars, DJ's etc.

Specifications	
Mains supply	240VAC
Power consumption	25W
Dimensions	310(L) x 310(W) x 365(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
10W LED	SL-3443	$99.00	$88.95	$78.95

Par 64 5 Channel 94 LED DMX Spotlight

This LED Par light is equipped with up to 5 channels of DMX controls. It offers complete control over your stage, party or DJ lighting setup. Unit features bright red, green and blue LEDs which can produce a wide range of colour effects. Designed for easy installation, safe, energy efficient and long life operation. 240V powered, individually addressable via DIP switch and include a mounting bracket.

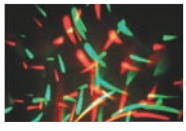
- Never change a globe again!
- Channels: Red, green, blue, brightness, strobe
- Dimensions: 245(L) x 195(Dia)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3424	$99.00	$88.95	$78.95

12W DMX Revolving LED Light

A feature packed and extremely powerful revolving LED light that will not break the bank. This unit has advanced moonflower effects with high power 3W Red, 3W Green, 3W Blue and 3W White LEDs which offer colour changing and colour mixing beams. With 7 Channel DMX 512 programming or linking capabilities, built-in sound modulator, a step motor for smooth movement and strobe speed adjustment.

- 7 DMX Channels (Colour, Rotation, Rotation Speed & Strobe/Dimmer)
- Control mode: Sound Active, Master/Slave or DMX-512
- Mains Powered
- Dimensions: 216(W) x 196(H) x 135(D)mm



	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2899	$169.00	$151.95	$134.95

DMX LED Moving Head Spotlight

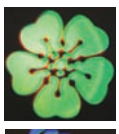
A cost effective 15W RGBW LED moving head spotlight. This unit is extremely compact and lightweight but is extremely big on features. Integrates a user selectable 540°pan and 270° tilt, it has 9 gobos plus open and wheel spin effect.

With 14 DMX channels, it features variable electronic strobe and dimmer functions. Built-in movement macros via master/slave or DMX. With its built in fan cooler and long life RGBW LED, this unit is built to last with up to 50,000 hours of service.

Great for stage lighting, club and party applications.

- Fan Cooled
- Variable Electronic Strobe
- Variable Electronic Dimmer
- Pan/Tilt Invert Option
- Vector speed channel for pan/tilt
- Built-in movement macros

NEW LOWER PRICE



Specifications	
Mains Supply	240VAC
Power Consumption	50W
Measures	249(H) x 173(W) x 173(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3440	$299.00	$269.00	$239.00

Party / Concert Lighting - DMX Controlled

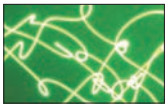
LASER LIGHTS - DMX CONTROLLED

Green DMX Laser Show

Applying the latest technology, this laser projector is ideal for bars, clubs, house parties or family functions. It produces over 100 green patterns with sound activation or DMX master/slave control.

- Sound and power active indicator
- Safety function
- Sensitivity adjustment
- Mains powered

Specifications	
Control Mode	Sound active, automatic, DMX512 (7 channels), master/slave
Modulation	0-20kHz
Power rating	20W
Dimensions	205(L) x 80(W) x 145(H)mm

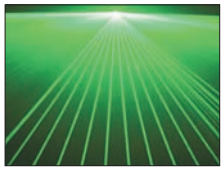


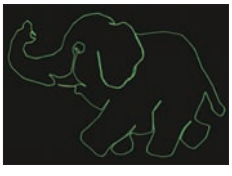
Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3436	$149.00	$133.95	$118.95

Animation Green Laser Show with ILDA

ILDA (International Laser Display Association) capability enables full software integration and complex animation of your laser show. The unit comes with pre-programmed displays and characters, but with the use of ILDA software such as Zion, Millennium or V3D you can add PC control to create cartoon, letters, figures or other characters. It also has DMX control capability so is suitable for the professional or stage application. Software is not included.

- ILDA software or DMX control
- Modulation: 0-20kHz
- Control mode: Sound active, automatic, DMX (6 channels), master/slave
- Mains powered
- Dimensions: 270(L) x 80(W) x 174(H)mm





Specifications	
Modulation	0-20kHz
Control Mode	Sound active, automatic, DMX (6 channels), master/slave
Power supply	AC 240V 50HZ
Dimensions	270(L) x 80(W) x 174(H)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3438	$299.00	$269.00	$239.00

DMX Powered Laser Beam

Unleash a barrage of atmosphere creating lasers at your next party, concert, or stage production. This model features an XLR out plug that allows you to daisy-chain multiple units together for full DMX controlled visceral ambience. Of course a single unit can also be controlled if your requirements aren't so intense. There's also a mic at the front so you can sit the unit near a speaker for auto laser mode. Dip switch at the rear allows control of sound active mode, auto mode, and to switch DMX addresses on or off. Mount to your speaker stand or other frame work with the supplied bracket.

Specifications	
Laser colour	Red, Green, Yellow
Sound control	Auto, DMX 512 (7 channels)
Laser patterns	More than 64 laser patterns
Power supply	240VAC 50Hz
Dimensions	363(L) x 143(W) x 67(H)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3451	$199.00	$178.95	$158.95

DMX CONTROLLERS

5 Channel DMX LED Light Controller

This compact 5 channel DMX LED light controller requires little set up and no programming necessary. It is fully compatible with our range of PAR spotlights, great for parties or stage lighting set ups. The controller allows you to create colourful scenes and amazing lighting effects. This unit is a good all round controller giving strobe and basic dimming effects. It also features six selectable modes with a combination of RGB colour mixing, fading, chasing and sound control.

- 5 channels
- 9VDC plugpack and microphone cable included
- Power consumption: 4.5W
- Weight: 1.15kg
- Dimensions: 258(L) x 123(W) x 55(H)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3423	$89.95	$80.95	$71.95

19" Rack Mount DMX Controller

DMX or to be technical,
DMX512, can add enormous capabilities to a stage, lighting, party or DJ setup. The DMX protocol is able to control multiple compatible devices, such as lights, dimmers, fog machines or laser shows with programmable sequences or scenes. For each scene you can program multiple parameters like fade, pan, strobe, colour etc. limited only by the capabilities of the actual DMX devices being controlled; save and play back each scene in the sequence your production requires. Rack-mountable and mains powered. See the Primers section of our website for more DMX information and programming tips.

- Control up to 12 devices
- 16 channels per device
- Standard 19" rack mount
- 3U rack space
- 9V plugpack included
- Dimensions: 482(W) x 133(H) x 70(D)mm

Cat.	Qty 1+	Qty 5+	Qty 10+
SL-3429	$149.00	$133.95	$118.95

TECH TIP

DMX512 Explained

DMX or DMX512 is a communications protocol used for controlling devices in stage and theatrical applications. It is used to transmit digital multiplexed signals – DMX stands for Digital Multiplexed Signals. The DMX protocol is simple, robust and reliable.

DMX512 provides up to 512 control channels per data link. It can be seen as 512 sliders on a lighting console, connected to 512 light bulbs. Each slider's position is sent over the data link as an 8-bit number having a value between 0 and 255. The value 0 corresponds to the light bulb being completely off while 255 corresponds to the light bulb being fully on.

A technician would use a DMX512 setup to control lights, dimmers, fog machines or any other DMX-compatible device connected to the data stream.

To learn more visit the Primers section on the Jaycar website

STAGE LIGHTING

3W LED Pinspot Lights

Newest addition to our range of RAVE party lighting are these 3W LED Pinspot Lights. Compact and lightweight, but offers exceptional power and bright precision beam. Great for parties, stage, clubs and mood lighting applications. These are very cost effective and greener alternative to halogen spotlights. They will also provide longer service out in the field.

- Mains 240V powered.

Four models to choose from, each with different colour LEDs:

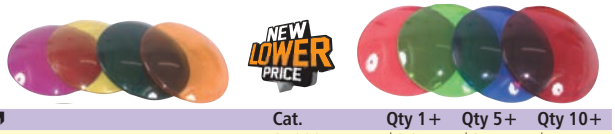
3W LED WHITE Cat. SL-3425
3W LED RED Cat. SL-3426
3W LED GREEN Cat. SL-3427
3W LED BLUE Cat. SL-3428

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
White	SL-3425	$24.95	$22.35	$19.70
Red	SL-3426	$24.95	$22.35	$19.70
Green	SL-3427	$24.95	$22.35	$19.70
Blue	SL-3428	$24.95	$22.35	$19.70

Pinspot Coloured Gel Caps

Designed for our Par 36 pinspot light (Cat SL-2960), this set of 8 gel caps include yellow, red, light green, dark green, blue, purple, amber and rose pink.



	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2965	$9.95	$8.75	$7.75

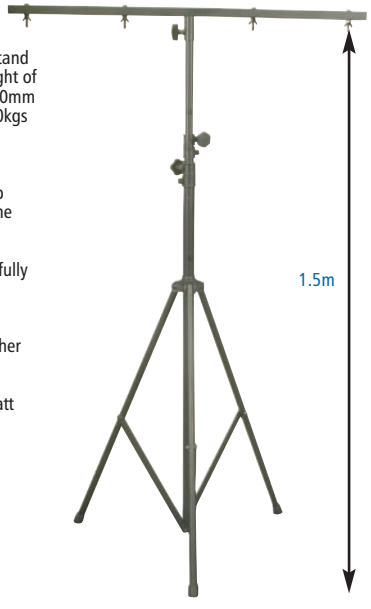
Lighting Stand

This strong and sturdy lighting stand will extend from a minimum height of 1,530mm to a maximum of 3,650mm and is designed to carry up to 20kgs on the square section cross tree.

An integrated tripod support has collapsible legs that extend up to 750mm from the centre line of the stand, giving an overall base of 1,500mm which provides good stability even when the stand is fully extended.

The cross tree has 4 bolts for attaching up to 8 Pin Spots or other attachments.

The entire stand is finished in matt black.



	Cat.	Qty 1+	Qty 4+	Qty 10+
	CL-2800	$89.95	$80.95	$71.95

Light Clamp

Used to secure the pinspot lights to a mounting stand.

- Gap size: 0 - 70mm
- Dimensions: 78(L) x 45(H) x 30(D)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2969	$5.95	$5.25	$4.75

STROBES

"Strobe" LED with Magnetic Base

The blue-light disco is back! This portable 'police' strobe light can be placed on any iron/steel surface and it will stay there put them on the fridge or filing cabinet, hang them from the ceiling and you've got yourself an instant disco. Also great for attracting attention to sale items in a shopfront window. Battery operated (3 x AAA), with a socket for adaptor use (requires a 4.5VDC 200mA adaptor - not included). Available in red, blue or amber.

- Not a Xenon type strobe

	Cat.	Qty 1+	Qty 2+	Qty 4+
Red	SL-3325	$19.95	$17.70	$15.70
Blue	SL-3327	$19.95	$17.70	$15.70
Amber	SL-3329	$19.95	$17.70	$15.70

Rectangular Strobe Light - 24 LED

LEDs haven't always been a suitable alternative for illumination, accent and other general lighting application. However recent developments in production of high intensity LEDs and the ever decreasing price has allowed for these energy efficient and long lasting light source to make their way to consumer orientated lighting products. This strobe light has super high intensity LEDs, that will add the necessary life to any party and produce an eye catching array of lighting effects to attract attention.

- Can be set to flash at a slow or fast rate and are supplied with adjustable brackets for optimal positioning.

	Cat.	Qty 1+	Qty 5+	Qty 10+
24 x White LEDs	SL-2895	$19.95	$17.70	$15.70

Mini Strobe Light - Xenon

This unit uses a xenon flash tube and has a variable flash rate up to 10Hz.

- The unit is housed in a compact case measuring 85(W) x 50(H) x 125(D)mm and is fitted with an adjustable mounting bracket
- Operates on 240 VAC
- Supplied with a 1.7m cable
- Domestic use only

NOTE!
NEW & IMPROVED

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-2990	$34.95	$31.45	$27.90

74 White LED Strobe Light

This mains powered mini strobe features 74 super bright white LEDs with adjustable flash rate and sound activation. It is made from a strong plastic to keep the weight down to just 0.4kg and is supplied with mounting hardware. Energy efficient and long lasting party light ideal for domestic use.

- 74 super bright white LEDs
- Adjustable flash rate
- Dimensions: 140(L) x 120(Dia.)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3464	$39.95	$35.90	$31.90

Party / Concert Effects

EFFECT LIGHTING

40 Watt Blacklight Fluoro Tube

Used extensively for live music, discos, night clubs, and great for parties. At our new low prices, you can now afford them.

- Requires standard 40 Watt fluoro fitting.
- Dimensions: 1225(L) x 25(Dia)mm.

	Cat.	Qty 1+	Qty 5+	Qty 10+
Each	SL-3152	$29.95	$26.90	$23.70

Mini Ultra-violet Fluoro Light with Torch

Use to detect counterfeit currency, to check for fake ID, gemstone and mineral inspection, or to just have fun by making objects glow. Includes small white spotlight.

- 4W UV lamp
- Hand carry strap
- Requires 4 x AA batteries
- Dimensions: 160(L) x 52(D) x 23(W)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3146	$14.95	$13.35	$11.70

PAR 64 2 Channel 177 UV LED DMX Spotlight

A lightweight, compact and cool-running blacklight Par 64 spotlight with 3 operating modes: sound-active, automatic and DMX control. It features 177 UV emitting LEDs, brightness control, strobe effect and a built-in microphone. 240V powered, designed for long life operation and easy installation with mounting bracket included. Ideal for live performance stages, installations in night clubs or UV parties.

- 240VAC mains powered
- Par 64 with 177 UV LEDs
- Channels: brightness and strobe effect
- Dimensions: 310(L) x 240(W) x 200(H)mm

	Cat.	Qty 1+	Qty 5+	Qty 10+
	SL-3466	$119.00	$106.95	$94.95

CREATE AN ATMOSPHERE

Snow Machine

Add an extra dimension to parties or entertainment events by producing a snow storm on command! The jet of snow consists of small dense foam balls which float majestically to the ground like real snow to create an artificial blanket on the ground. Once it lands the snow slowly dissipates leaving a light residue and unlike fog or smoke it will not trigger smoke detectors. Includes a versatile mounting bracket for easy setup and wireless remote control to trigger the snow.

- 240VAC operation
- 1.3 Litre fluid capacity
- Dimensions 337(L) x 210(W) x 170(H)mm
- Snow juice sold separately

NOTE: Snow machine liquid may cause eye or skin irritation and can be slightly slippery on smooth surfaces. Handling and safety directions available online.

AF-1217

WATCH VIDEO

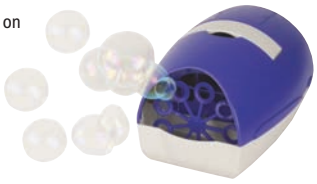
1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Snow Machine	AF-1216	$99.00	$88.95	$78.95
Snow Juice 1 Litre	AF-1217	$9.95	$8.75	$7.75
Snow Juice 3 Litre	AF-1218	$19.95	$17.70	$15.70

Bubble Machine

Enhance the atmosphere at your next party or special event with this affordable bubble machine. It has an easy to use on/off switch on the unit and can be operated two ways: by mains power adaptor (included) or with batteries for portable application (Requires 2x C batteries, not included).

- For best results, use our Bubble Mania bubble liquid Cat. AB-1222 (946ml)



	Cat.	Qty 1+	Qty 4+	Qty 10+
Bubble Machine	AB-1220	$34.95	$31.45	$27.90
Bubble Liquid	AB-1222	$6.95	$6.25	$5.50

Rave Fog Machine

This tough fog machine will add the extra dimension to any mobile DJ setup, home party or disco lighting - with laser light shows, mirror balls and other party lighting coming out in full effect. The unit produces clouds of white fog on demand with the use of an illuminated 3m wired remote control. Features an adjustable mounting bracket, tough metal construction and fluid gauge.

- 240VAC operation
- 70 cubic metres/min fog output
- 800ml fluid capacity
- 330(L) x 160(W) x 140(H)mm
- Fog juice sold separately (AF-1212)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Fog Machine	AF-1214	$99.95	$89.95	$79.95
Fog Juice 1 Litre	AF-1212	$17.95	$15.95	$14.35

DMX Fog Machine

The ambience and mystique associated with fog and mist is excellent at nightclubs, parties, and spooky film re-enactments. This unit gives you a range of control options which include the ability to set the machine to burst fog for specific durations at certain intervals as well as to manually trigger with the supplied remote control. But the real standout feature is the support for DMX. Hook this up to your DMX512 controller and fog will waft out with the beats allowing total customisation over your stage or party effects.

- Tank capacity: 1.2L
- Remote included
- Dimensions: 335(L) x 150(W) x 186(H)mm

Fog juice to suit - AF-1212 (available separately)

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 4+	Qty 10+
Fog Machine	AF-1213	$129.00	$115.95	$102.95
Fog Juice - 1 Litre	AF-1212	$17.95	$15.95	$14.35

Strawberry Essence Scent for Fog Machines

Strawberry essence additive that provides a more desirable smell to your fog machine. Just add a few drops to the fog juice container on your fog machine, and hey presto, strawberry scented fog!

	Cat.	Qty 1+	Qty 4+	Qty 10+
20ml	AF-1211	$14.95	$13.35	$11.70

Gadgets & Gizmos

Last year we claimed that our Gadget section had nothing but "...Helicopters, Helicopters & more Helicopters". Well, we still have a lot of Helicopters, but we are now supporting the Multi-rotor types that are in the news. (Better grab one before they are banned!)

We also have some fantastic R/C Cars. Until you actually see them working, you have no idea just how fast these electric cars are. It's astonishing just how much power the DC motors can produce.

In addition to this we have an incredible "Rover" which is not only remote control in itself but has a steerable remote controlled video camera on its turret. You can, for example, chase your pets around the house (page 491).

There are lots of other new gadgets as well.

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QUADCOPTERS

4 Channel Wi-Fi Controlled Quadcopter With Camera

NEW 2013

PILOT SKILL: ADVANCED

The big daddy of Quadcopters. Measuring at a monstrous size of 410mm wide, this large camera equipped quadcopter that can be remotely controlled with an iPhone or iPad. The camera will stream live footage to your iPhone® so you can fly it without looking. Survey your surroundings and take snap shots or record 640 x 480 video stream directly to your iPhone® or iPad®. It features a 6 axis gyroscope that provides very stable flight, with the potential for amazing 360 degree flips, rolls, and banks. Includes 3.7V 500mAh Li-Po battery included with chopper.

iPad® / iPhone® not included

WATCH VIDEO

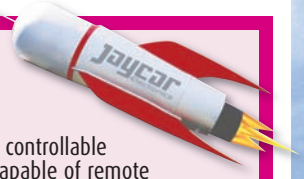
Specifications	
Channels	4
Batteries	Remote requires 6 x AA
Camera	30fps @ 640 x 480
Flight time	6-8 minutes
Charge time	1 hour
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Transmitter	Wi-Fi
Control distance	100-150m
Recommended for ages	12+
Dimensions	410(L) x 410(W)mm

TECH TIP!
Wi Fi allows unlimited number to be flown at the same time

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3890	$199.00	$178.95	$158.95

CMD Robot

Makers Name: Tom Ingram
Location: NSW



My invention is basically a remote controllable UGV (unmanned ground vehicle) capable of remote deployment into environments to collect and transmit data back to a central HQ. The robot is equipped with various sensors that feed into an Arduino that writes serial data to a Raspberry Pi which transmits over Wi Fi/3G/LTE to a server. For control of the robot a similar process is implemented.

For more details scan the QR code or go to www.jaycar.com.au/makers

RC Quadcopters

QUADCOPTERS (CONTINUED)

4 Channel Mini Quadcopter with Flip Control

A micro quad copter with foam protected blades to help avoid damage. This quadcopter is able to perform some spectacular stunts. It does all the standard left/right, back/forward moves, etc but can also flip 360° and roll. Get a bit of height then hit the flip button, though slightly unnerving at first you will get the hang of it. The 6 axis gyroscope and 3 x accelerometers help the quad to self-level keeping it parallel to the ground. Excellent for stunts and general flying. Includes 3.7V 240mAh Li-Po battery for quadcopter.

WATCH VIDEO NEW 2013

Specifications	
Channels	4
Transmitter	2.4GHz
Batteries	Remote requires 4 x AA
Flight time	6-9 minutes
Charge time	60 minutes
Charges off remote	No
Charges off PSU	Yes
Charges off USB	Yes
Control distance	100-150m
Recommended for ages	12+
Dimensions	165(L) x 165(W)mm

TECH TIP!
Fly up to 20 at the same time without conflict

PILOT SKILL: INTERMEDIATE

	Cat.	Qty 1+	Qty 3+	Qty 6+
Quadcopter	GT-3860	$79.95	$71.95	$63.95
Spare Parts				
Rotor Blades	GT-3861	$9.95	$8.75	$7.75
Motor	GT-3862	$14.95	$13.35	$11.70
Li-ion Battery	GT-3863	$14.95	$13.35	$11.70

4 Channel Quadcopter with Flip Control

A fast, responsive, agile, quadcopter that can turn, bank, and flip with ease. Appearance-wise, it's quite a simplistic design with 4 motors connected to a gyro/receiver PCB however the stunts you can perform are incredible. The durable design will survive beginners crashes, and after a while you'll be rolling this Quadcopter like a professional. LEDs are positioned around the body of the craft so it looks very cool while flying at night. Suitable for indoor and outdoor use. The 2.4GHz remote control features an LCD so you can see trim adjustments, throttle, and more.

WATCH VIDEO NEW 2013

Specifications	
Channels	4
Transmitter	2.4GHz
Batteries	Remote requires 6 x AA
Flight time	7-8 minutes
Charge time	50 minutes
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Control distance	100-150m
Recommended for ages	12+
Dimensions	135(Dia) x 50(H)mm

RELATED PRODUCT...
See Add On Modules below

TECH TIP!
Fly up to 50 at the same time without conflict

PILOT SKILL: ADVANCED

	Cat.	Qty 1+	Qty 3+	Qty 6+
Quadcopter	GT-3820	$99.00	$88.95	$78.95
Spare Parts				
Spare Rotors A+B Pk.4 Set	GT-3821	$9.95	$8.75	$7.75
Motor Assembly with Shaft	GT-3822	$19.95	$17.70	$15.70
3.7V Li-ion Battery	GT-3823	$24.95	$22.35	$19.70

ADD ON MODULES TO SUIT GT-3810 & GT-3820

Take your GT-3820 (see above) 4 Channel Quadcopter and GT-3810 (page 489) 4 Channel Single Blade Helicopter to an entirely new heights of functionality. These 4 new interchangeable add-on modules will add a different dimension to your flying experience.

NEW 2013

CAMERA MODULE ADD-ON FOR GT-3810/GT-3820
Mount a camera to your chopper and record footage or take snapshots of all your action. Records to a 2GB microSD (included).
GT-3830

- Records 640x480 AVI at 30fps
- Includes a 2GB microSD card
- Comes with a USB microSD card reader

BUBBLE BLOWER MODULE FOR GT-3810/GT-3820
Allows you to release a flurry of bubbles as you fly.
GT-3832

WATER JET SPRAY MODULE FOR GT-3810/GT-3820
Squirt unsuspecting family members with this water add-on module.
GT-3834

RETRACTING WINCH MODULES FOR GT-3810/GT-3820
Conduct rescue operations and winch your injured plastic army men to safety.
GT-3836

GT-3830 GT-3832 GT-3834 GT-3836

	Cat.	Qty 1+	Qty 3+	Qty 6+
Camera	GT-3830	$39.95	$35.90	$31.90
Bubble Blower	GT-3832	$14.95	$13.35	$11.70
Water Jet Spray	GT-3834	$14.95	$13.35	$11.70
Retracting Winch	GT-3836	$14.95	$13.35	$11.70

TECH TIP
See website for our comprehensive range of spare parts for current and superceded helicopters and RC cars.

RC HELICOPTERS - DOUBLE BLADE

Mini 3 Channel RC Helicopter with Gyroscope

A 3 channel chopper employing a coaxial rotor design resulting in a strong gyroscopic effect for stable flight control. Able to fly in six directions which include rotation clockwise/anticlockwise, forward/backward and up/down this chopper will provide hours of fun for children and adults alike. The engine will power off when the blades are choked to prevent the chopper from shredding its thrust mechanism. Transmitting on 2.4GHz the signal is stable and the range is extended.

Specifications	
Channels	3
Transmitter	2.4GHz
Batteries	Remote requires 4 x AA batteries
Flight time	5-7 mins
Charge time	50-60 mins
Charges off remote	Yes
Charges off PSU	No
Charges off USB	Yes
Gyroscope	Yes
Included spare parts	Tail blades and tail rotor
Recommended for ages	14+
Dimensions	220(L) x 98(W) x 38(W)mm

WATCH VIDEO

TECH TIP!
Fly up to 10 at the same time without conflict

PILOT SKILL: BEGINNER

VIPER

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3565	$39.95	$35.90	$31.90
Spare Parts				
Blade Set Main A+B Tail	GT-3566 NEW	$9.95	$8.75	$7.75
Balance Bar, Buckle & Blade Grip	GT-3567 NEW	$9.95	$8.75	$7.75
A+B Gear Set	GT-3568 NEW	$6.95	$6.25	$5.50

NEW LOWER PRICE

WATCH VIDEO

4 Channel IR Helicopter with Gyroscope

Outstanding performance with stable flight and magnificent hovering capabilities; all courtesy of the on-board gyroscope and a total of 4 motors! Dip, turn, spin or hover just like you see in the movies and if the batteries run out simply recharge through the quick connect lead from the remote controller. Equipped with a full metal frame chassis, it is very durable and shockproof. Excellent for beginners and first time flyers.

Specifications	
Channels	4
Transmitter	IR
Batteries	Remote requires 6 x AA
Flight time	5-7 mins
Charge time	40-50 mins
Charges off remote	Yes
Charges off PSU	No
Charges off USB	No
Gyroscope	Yes
Included spare parts	Spare main blades and tail rotor
Recommended for ages	14+
Dimensions	230(L)mm

TECH TIP!
Fly up to 3 at the same time without conflict

PILOT SKILL: BEGINNER

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3386	$39.95	$35.90	$31.90
Spare Parts				
Blade Set Main A+B with 3 Rotors	GT-3387	$12.95	$11.35	$10.35

3 Channel Water Cannon Equipped RC Helicopter with Gyroscope

Take to the skies and drench your foes in water! Ok mildly dampen their clothes. This chopper packs a powerful water cannon that will shoot a stream of water up to 1m for 3 seconds. Three channels with in-built gyroscope allows for extremely stable flight control allowing you to aim and fire with precision. Refilling is easy with the supplied water dropper, it also comes with spare tail and main rotor blades.

NEW 2013

Specifications	
Channels	3
Transmitter	IR
Batteries	Remote requires 6 x AA
Flight time	10 minutes
Charge time	1 hour
Charges off remote	Yes
Charges off USB	No
Charges off USB	Yes
Gyroscope	Yes
Included spare parts	Tail rotor
Recommended for ages	14+
Dimensions	240(L) x 117(H) x 47(W)mm

WATCH VIDEO

TECH TIP!
Fly up to 3 at the same time without conflict

HYDRA

PILOT SKILL: BEGINNER

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3496	$49.95	$44.90	$39.90
Spare Parts				
Blade Set Main A+B with Tail Rotor	GT-3477	$9.95	$8.75	$7.75
Balance Bar, Buckle and Blade Grip	GT-3478	$9.95	$8.75	$7.75
Main Gear Set	GT-3479	$6.95	$6.25	$5.50

RC Helicopters

3 Channel Double Blade RC Helicopter with Gyroscope

The defiance of gravity continues with this powerful 3 channel gyroscope equipped chopper. Excellent flight control enables smooth turns and banks in the sky. Its aluminium framed with a very handy built-in safety feature which will immediately shut off the motor when the blades are jammed. Also features bright white LED search light above the cockpit and flashing LED below. Flight capability Up/Down/Left/Right/Forward/Backward.

Specifications	
Channels	3
Transmitter	27MHz (A+B frequencies)
Batteries	Remote requires 4 x AA
Flight time	6-8 mins
Charge time	70 mins
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Gyroscope	Yes
Included spare parts	Tail rotor
Recommended for ages	14+
Dimensions	450(L) x 83(W) x 200(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3530	$59.95	$53.95	$47.90
Spare Parts				
Main Blade A+B	GT-3531	$9.95	$8.75	$7.75
Spare Gear Set	GT-3532	$6.95	$6.25	$5.50
Balance Bar & Connect Buckles	GT-3533	$4.95	$4.45	$3.90
Tail Module and Tail Rotor	GT-3534	$16.95	$14.95	$13.35
Frame/Shaft Blade Grip	GT-3535	$9.95	$8.75	$7.75
7.4V Li-Po Battery	GT-3536	$19.95	$17.70	$15.70

TECH TIP!
Fly up to 2 at the same time without conflict

PILOT SKILL: BEGINNER

3 Channel Single Blade RC Helicopter with Gyroscope

An advanced 3 channel single blade RC chopper that is fast and agile but very easy and simple to fly. It's decked out in metallic styled armour and yellow/black markings giving it the appearance of a military prototype. Fly up, down, turn left, turn right, forward, backward, and hover. When the main rotors are jammed the device will switch off so you don't rip the blades apart. Its 2.4GHz system allows for long range and more responsive controls, it also allows up to 100 helicopters to be flown at the same time. Comes with a remote with built in LCD which relays the choppers flight status. There's also an LED at the front for night time operations. For beginners there is a switch which lowers the speed by half to help you learn the ins and outs of single blade chopper flight. 7.4V 650mAh Li-Po battery included for chopper.

NEW 2013

WATCH VIDEO

TECH TIP!
Fly up to 50 at the same time without conflict

Specifications	
Channels	4
Batteries	Remote requires 4 x AA batteries
Flight time	6-8 minutes
Charge time	30-40 minutes
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Transmitter	2.4GHz
Control distance	30m
Pitch	Fixed
Recommended for ages	14+
Dimensions	530(L) x 155(H) x 75(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3850	$79.95	$71.95	$63.95
Spare Parts				
Main Blade & Tail Rotor	GT-3851	$9.95	$8.75	$7.75
Gear Set	GT-3852	$9.95	$8.75	$7.75
Balance Bar & Connect Buckle	GT-3853	$9.95	$8.75	$7.75
7V Li-Po Battery	GT-3854	$19.95	$17.70	$15.70

PILOT SKILL: INTERMEDIATE

4 Channel Single Blade RC Helicopter with Gyroscope

An extremely agile single blade RC chopper packed with extras. The advanced 4 channel design allows for excellent manoeuvrability at high speeds. A small LCD is built into the remote control which outputs throttle readings, transmitter battery level, trim indications and more. It comes with 2 x Li-Po batteries so when one goes flat, replace it and you're up and flying again. The supplied dual dock charger allows simultaneous charging of both batteries from either a USB port, 240 mains adaptor (included) or from the remote control. 1 x spare tail blade and 2 x spare blades included.

WATCH VIDEO

NEW 2013

Specifications	
Channels	4
Transmitter	2.4GHz
Batteries	Remote requires 6 x AA
Flight time	Approximately 5-6 minutes
Charge time	Approximately 30 minutes
Charges off remote	Yes
Charges off PSU	Yes
Charges off USB	Yes
Gyroscope	Yes
Included spare parts	Main blades and tail rotor
Recommended for ages	14+
Dimensions	220(L) x 82(H)mm

TECH TIP!
Fly up to 10 at the same time without conflict

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3484	$79.95	$71.95	$63.95
Spare Parts				
Rotor and Tail Blades	GT-3485	$9.95	$8.75	$7.75
Balance Bar and Connect Buckle	GT-3486	$9.95	$8.75	$7.75
Main Gear Set	GT-3487	$9.95	$8.75	$7.75
3.7V Li-Po Battery	GT-3488	$14.95	$13.35	$11.70

ARROW

PILOT SKILL: ADVANCED

3 Channel Single Blade RC Helicopter with Video Recording

Single blade RC choppers offer better performance, speed and manoeuvrability than their less able double bladed counterparts. Document your amazing pilot skills and amass a collage of amazing videos of trench runs, tree dodges, wall scrapes, and perfect landings. The chopper has a built in gyroscope which gives pilots excellent flight control. It also offers up to 8 minutes of flight time and can be recharged with the included mains charger. Video and image capture is initiated with the corresponding buttons on the remote control.

- 1GB microSD card included
- Video capture: 640 x 480 at 30fps
- Image capture: 640 x 480 JPG

Specifications	
Channels	3
Transmitter	27MHz
Batteries	Remote requires 4 x AA
Flight time	8mins
Charge time	2-3 hrs
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Included spare parts	Main blade and tail rotor
Recommended for ages	14+
Dimensions	495(L) x 65(W) x 140(H)mm

Video camera mounted under the body of the chopper

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3562	$99.00	$88.95	$78.95
Spare Parts				
Main Blade A+B Tail Set	GT-3556 NEW	$9.95	$8.75	$7.75
Gear Set	GT-3557 NEW	$6.95	$6.25	$5.50
Balance Bar, Buckle & Blade Set	GT-3558 NEW	$9.95	$8.75	$7.75
Rechargeable Battery	GT-3559 NEW	$24.95	$22.35	$19.70

PILOT SKILL: ADVANCED

3 Channel RC Helicopter with Gyroscope

NEW LOWER PRICE

TECH TIP!
Fly up to 2 at the same time without conflict

Note: Colour may vary

This 3 channel helicopter has a very strong aluminium frame and is matched with a powerful motor to provide enormous lift. With its substantial weight and power, it is advisable to fly this chopper in a large open spaces (can be flown outdoors in calm conditions) away from obstacles. Features a built in gyroscope which provides stable flight. It is very easy to fly, controlled with its 3 Channel 27MHz Remote. Equipped with a high capacity Li-Po battery which provides up to 8 minutes of flight time. Supplied with mains charger.

- 7.4V 1500mAh Li-Po rechargeable battery included
- 27MHz Remote control
- Full scale remote control
- Smooth hovering performance
- Long battery life
- Energy saving power cut off

Note: Due to its size and power, adult supervision is recommended.

Specifications	
Channels	3
Transmitter	27MHz (A+B frequencies)
Batteries	Remote requires 4 x AA
Flight time	8 mins
Charge time	160 mins
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Gyroscope	Yes
Included spare parts	Tail rotor
Recommended for ages	14+
Dimensions	775(L) x 130(W) x 305(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3360	$89.95	$80.95	$71.95
Spare Parts				
Main Rotor Blade and Tail Set	GT-3361	$9.95	$8.75	$7.75
Main A+B Gear Set	GT-3362	$9.95	$8.75	$7.75
Balance Bar, Connecting Buckle and Blade Grip Set	GT-3363	$9.95	$8.75	$7.75
Spare 7.4V Li-Po Battery	GT-3364	$29.95	$26.90	$23.70

PILOT SKILL: INTERMEDIATE

4 Channel Single Blade RC Helicopter with Gyroscope

A large single blade chopper great for beginners and pros alike. Single blade choppers are usually harder to control for beginners but this model features a large re-positioned (angle adjusted) flybar allowing greater stability but still retains the agile nature of single blades. There's also a spur gear on the tail rotor adding even more performance to this chopper. When you've got the knack you'll be amazed at the stability. You'll be able to fly in circles, bank left and right, fly forward or backward. It's relatively easy to learn, but difficult to master which is what will keep you addicted. We recommend starting off very slowly, try very short flights, get a feel for how it performs before upping the throttle for extended flights. It comes with a beefy 2.4GHz remote control that features an LCD which shows your trim adjustments and throttle. With the 2.4GHz frequency you'll get much longer range and reliability than other bands.
Features a tough aluminium frame that will take knocks and bumps and the powerful motor allows for indoor and outdoor use.

Specifications	
Channels	4
Transmitter	2.4GHz
Batteries	Remote requires 4 x AA batteries
Flight time	8 mins
Charge time	60 minutes with mains adaptor
Charges off remote	No
Charges off PSU	Yes
Charges off USB	No
Control distance	100-150m
Pitch	Fixed
Recommended for ages	14+
Dimensions	460(L) x 400(W) x 160(H)mm

RELATED PRODUCT...
See Add On Modules on page 486

TECH TIP!
Fly up to 50 at the same time without conflict

	Cat.	Qty 1+	Qty 3+	Qty 6+
Helicopter	GT-3810	$99.00	$88.95	$78.95
Spare Parts				
Main Blade Set	GT-3811	$9.95	$8.75	$7.75
Main Gear Set	GT-3812	$9.95	$8.75	$7.75
Balance Bar & Buckle	GT-3813	$9.95	$8.75	$7.75
7.4V Li-Po Battery	GT-3814	$24.95	$22.35	$19.70

PILOT SKILL: ADVANCED

RC Cars

MINI RC CARS

High Speed Mini RC Cars

Insanely fast mini RC cars that zip around at ridiculous speeds enabling you to roll, flip, fly (with a jump!), and perform amazing stunts. They can travel at 30kmh, but the maximum speed can be lowered if your reflexes aren't up to par. They come with a set of little plastic witches hats for you to hone and skills on or for enjoying the simple pleasure of knocking them over. The cars can be recharged directly from the remote or with the supplied USB cable.

- Recharge straight from the remote (40 min recharge time)
- Max speed adjustment: 5kmh, 10kmh, 15kmh, 20kmh, 30kmh
- Recommended for ages 3+

WATCH VIDEO NEW 2013

GT-3842 MINI TRUCK

GT-3840 MINI TRUGGY WITH WITCHES HATS

MINI TRUCK	GT-3842
Remote style	40MHz gun style
Recharge time	40 minutes
Batteries	Remote requires 4 x AA
Recommended for ages	3+
Dimensions	113(L) x 83(W) x 44(H)mm

MINI TRUGGY	GT-3840
Remote style	27MHz gun style
Recharge time	40 minutes
Batteries	Remote requires 4 x AA
Recommended for ages	3+
Dimensions	105(L) x 71(W) x 44(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Mini Truggy	GT-3840	$24.95	$22.35	$19.70
Mini Truck	GT-3842	$24.95	$22.35	$19.70

DRIVER SKILL: BEGINNER

1:24 Scale Electric RC Truggy

Featuring rear wheel drive, full suspension and front & rear bumpers, this fantastic little unit is made for off-road use. It packs a powerful engine, digital proportional steering and throttle control, a feature usually found in more expensive RC cars. The 27MHz gun style remote control features tri-band selectable frequency and charges the Truggy directly.

- Drive up to 3 at once without conflict
- Available in red or blue

NEW 2013

Specifications	
Remote style	27MHz gun style
Average drive time	5-8 minutes
Includes	3.7V Li-ion battery
Batteries	Remote requires 4 x AA
Recommended for ages	8+
Dimensions	270(L) x 136(W) x 95(H)mm

WILD WOLF

DRIVER SKILL: BEGINNER

	Cat.	Qty 1+	Qty 3+	Qty 6+
1:24	GT-3794	$29.95	$26.90	$23.70

1:10 Scale Remote Controlled Buggy

A sleek and powerful RC buggy suitable for ripping up a dirt track straight out of the box. It's equipped with a powerful electric motor capable of pushing this unit up to an insane 18kmh and features digital proportional steering and throttle control. This allows for a more realistic range of driving functions like gradual acceleration/turning instead of going from naught to full acceleration or full left/right throw as soon as you touch the controls. The gun style remote uses the 2.4GHz frequency band for added responsiveness and range. The unit features 4 wheel suspension
with front and rear shock absorbers as well as front/rear bumpers to withstand most punishment you'll throw at it. This car will offer hours of fun for the young and old alike.

- Drive up to 8 cars without conflict

NEW 2013

Specifications	
Remote control	2.4GHz gun style
Batteries	Remote requires 4 x AA
Unit powered by	9.6V Ni-MH battery (included)
Average drive time	12-15 mins
Recommended for ages	10+
Dimensions	485(L) x 300(W) x 150(H)mm

SHADOW

DRIVER SKILL: BEGINNER

	Cat.	Qty 1+	Qty 3+	Qty 6+
1:10	GT-3790	$79.95	$71.95	$63.95

OFFICIALLY LICENSED PORSCHE & BUGATTI REMOTE CONTROL CARS

Own your very own Porsche 911 or Bugatti Veyron Super Sport without breaking the bank. Officially licensed these RC cars boast an astonishing level of detail when compared to the real thing, from its unmistakeable grille at the front to the exposed engine at the rear.

- Officially licensed products
- Moves forward or reverse; turns left or right
- Working front LED lights

Bugatti Veyron 16.4 RC Cars - Officially Licensed - 27MHz

NEW 2013

1:26 SCALE 27MHz BUGATTI VEYRON 16.4 GRAND SPORT
Front LED headlights turn on as the car moves forward. Remote control features a flexible antenna which minimises the possibility of damage.

Cat. GT-3886

1:12 SCALE 27MHz BUGATTI VEYRON 16.4 SUPER SPORT
The car features working suspensions and rubber tyres for improved handling, while the LED lights activate as the car moves forward or reverse.

Cat. GT-3880

GT-3886

GT-3880

Specifications	GT-3886	GT-3880
Frequency	27MHz	27MHz
Car battery	3 x AA required	Rechargeable 7.2V 700mAh Ni-Cd battery included
Batteries	Remote requires 9V	Remote requires 9V
Recommended for ages	6+	6+
Dimensions	171(L) x 80(W) x 45(H)mm	366(L) x 170(W) x 93(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
1:26 Grand Sport	GT-3886	$19.95	$17.70	$15.70
1:12 Super Sport	GT-3880	$59.95	$53.95	$47.90

DRIVER SKILL: BEGINNER

Porsche 911 GT3 RS RC Cars - Officially Licensed - 27MHz

NEW 2013

The Porsche GT3 RS series is world-renowned, for pushing the already zippy 911 sports car to its limits and beyond in the form of a track-worthy production race car. Experience a bite-sized thrill of owning a Porsche in the comfort of your own living room. Officially licensed by Porsche AG the RC car is modelled after the stunning RS4.0, draped in a bold orange/black colour scheme reminiscent of the Mk1. The car shows remarkable amount of detail, including the non-uniform profile of the carbon-fibre rear wing found on the real car.

RELATED PRODUCT...
Full range of Alkaline & Rechargable Batteries on page 290 to 293

1:26 SCALE 27MHz PORSCHE 911 GT3 RS RC CAR
Front LED headlights turn on as the car moves forward. Remote control features a flexible antenna to minimise the possibility of damage.
Cat. GT-3888

1:12 SCALE 27MHz PORSCHE 911 GT3 RS RC CAR
Features working suspensions and rubber tyres for improved handling. LED headlights turn on as the car moves forwards, rear LED lights turn on as the car reverses.
Cat. GT-3882

GT-3888

GT-3882

Specifications	GT-3888	GT-3882
Frequency	27MHz	27MHz
Car battery	3 x AA batteries required	Rechargeable 7.2V 700mAh Ni-Cd battery included
Batteries	Remote requires 9V	Remote requires 9V
Recommended for ages	6+	6+
Dimension	172(L) x 72(W) x 47(H)mm	371(L) x 141(W) x 92(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
1:26	GT-3888	$19.95	$17.70	$15.70
1:12	GT-3882	$59.95	$53.95	$47.90

DRIVER SKILL: BEGINNER

Wi-Fi Rover 2.0 with Video Recording & Adjustable Camera Angle

Features a remote control tilting camera which allows users to stalk family members and pets, and survey the area which abounds. Users can also record videos and take snapshots of adventures and playback or view from the device. Navigate with the on-screen controls or enable the G-sensor and use the iPhone® or iPad® like a steering wheel. The camera can elevate to certain positions and is fully controllable from the app.

1 YEAR WARRANTY

NEW 2013

Note: iPad® and iPhone® not included

Not to scale

WATCH VIDEO

EYE SPY

Specifications	
Wireless range	10m during video stream, 20m remote control
Video stream format	MJPG
Batteries	Rover requires 6 x AA
Video resolution	648 x 488 at 30FPS
Snapshot format	JPEG
Sensor type	CMOS
Wi-FI antenna	802.11b/g
Running time	Approx 2.5 hours
Compatibility	iPod Touch® (3rd & 4th generation), iPhone 4S®, iPhone 4®, iPhone® 3GS, iPad®, iPad 2® and iPad® (3rd generation), Apple® iOS: 5.1 and later
Recommended for ages	14+
Dimensions	240(W) x 190(L) x 120(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3599	$119.00	$106.95	$94.95

DRIVER SKILL: BEGINNER

Fun & Games

GIFTS - FOR FUN

USB Plasma Ball

WATCH VIDEO

Note: Laptop not included

Create a dazzling lighting effects with this USB Powered Plasma Ball that will surely impress your colleagues!

Plasma is the fourth state of matter - as the ball becomes energised, the gases inside light up and turn into plasma. By touching the outside of the ball, you provide a path for the energy to escape, so you can produce amazing effects.

- Requires 4 x AAA batteries for portable use
- Dimensions: 130(H) x 100(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GE-4089	$19.95	$17.70	$15.70

Sudoku Toilet Paper

Need mental stimulation? Forget about reading National Geographic - just play with the sudoku loo roll! After you've finished, put it to good use!

- Double ply

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1508	$5.95	$5.25	$4.75

Interactive Music Quiz

Test your family and friends' music knowledge with 'Quiz It' - the interactive music quiz! Played individually or as a team, the object of the game is to be the first to buzz in with the correct answer to the music related question and the player or team who accumulates the most points wins. Game options include 'Name That Track', 'Beat the Intro', 'Name the Artist' and 'Sing The Next Line'.

- Speaker console with music speaker, four team buzzers and LCD points display
- Quizmaster controller with music start/stop button, points buttons, crowd sound effects, three music distortion buttons and volume control
- MP3 player (not included) connection to the Quizmaster controller
- Requires 3 x AA batteries
- Recommended for ages 8 yrs+
- Dimensions: 270(L) x 205(W) x 75(H)mm

	Cat.	Qty 1+
	GE-4233	$19.95

GIFTS - FOR SUMMER FUN

Handheld Bubble Blower with LED Lights

NEW 2013

Not your ordinary bubble blower! This handheld device has vertical jaws that open and will produce continuos stream of super sized bubbles at the press of the trigger. Simply screw on the included bottle of bubble liquid and your ready to keep the kids entertained for hours chasing bubbles in the house or around the backyard. Features LED lights to add a fascinating effect.

- 2 x 100ml Bubble liquid included
- Requires 3 x AA batteries
- Recommended for ages 5+
- Dimensions: 170 (W) x 25(H) x 50(D)mm

	Cat.	Qty 1+	Qty 4+	Qty 10+
	AB-1232	$14.95	$13.35	$11.70

Novelty Air/Water Balloon Pump

Inflate balloons with air without becoming breathless doing it yourself, or fill balloons with water for some summer fun.

- Includes 500 colourful balloons
- Size: 330mm high
- Recommended for ages 3+

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3013	$14.95	$13.35	$11.70

Aquapod Bottle Rocket Launcher

The Aquapod is the most exciting and safest bottle rocket launcher ever. All you need is a common bike pump and any 2 litre plastic soft-drink bottle with a bit of water in it. Not only does the Aquapod launch a bottle up to 100 feet in the air, but no other launcher out there has a built-in safety valve that releases pressure at 60psi in order to keep everyone safe from over-pressurizing the launcher.

The Aquapod is built to last with high quality durable plastic.

- Recommended for ages 14+
- Dimensions: 270(L) x 205(W) x 75(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GT-3014	$34.95	$31.45	$27.90

FANS

Deluxe Water Misting Fan

Be cool and comfortable while outdoors with this personal water mister and fan in one. It is handy and portable with a moulded hand grip and trigger pump for ease of use. Powerful enough to provide a significant amount of breeze but safe enough for the kids to use with soft blades. Great for use while camping, at the beach, or at sporting events etc.

- Use as a water misting fan, stand alone fan or stand alone mister
- Requires 2 x AA batteries
- Dimensions: 270(H) x 70(Dia.)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1071	$8.95	$7.95	$6.95

Rechargeable Battery Operated Fan

NEW 2013

Beat any heat wave with this portable battery operated fan! Lightweight and powerful, it can be brought along to any BBQ, picnic and camping adventure. It's water resistance also makes it perfect for work sheds and near the pool. With its patented fan blade design and long running life, it really is the ultimate summer companion. Supplied with a power supply to charge the internal rechargeable batteries that can run for 6 hours when fully charged. It can also be powered by 8 x D cell Alkaline batteries (available separately).

Specifications	
2-speed control	High & Low
Weight	1.8kg
Dimensions	330(H) x 300(L) x 90(W)mm

1 YEAR WARRANTY

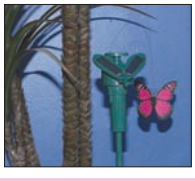
	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1062	$69.95	$62.95	$55.95

OUTDOOR GADGETS

Solar Powered Butterfly

A colourful full-sized butterfly hovering in your window box or garden when the sun comes out. When it doesn't a 1.5VxAA battery (not included) takes over.

- Includes solar cell, mounting spike and butterfly.
- Battery extra.
- Dimensions: 450(H)mm



	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1834	$14.95	$13.35	$11.70

HEALTH & FITNESS

Medical Ear Thermometer

NEW 2013

This thermometer measures a patients temperature via the ear canal - an accurate safe and non-invasive technique. It features a backlit readout so that you can measure, say, a child's temperature in a darkened room without disturbing their sleep.

- Fahrenheit/Celcius switch

1 YEAR WARRANTY

Specifications	
Range	32.0˚C to 42.9˚C
Accuracy	±0.3˚C
Response time	1 second
Power	Requires 1 x AAA battery
Dimensions	155(L) x 35(D) x 33(W)mm

RELATED PRODUCT...

For other types of thermometers see page 23

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7272	$34.95	$31.45	$27.90

HEALTH & FITNESS (CONTINUED)

Non Contact Body Thermometer with Smartphone App

NEW 2013

A fantastic solution for parents - a thermometer to read your child's temperature instantly! No need to wait up to five minutes with a thermometer in your child's mouth for an accurate result, this non-contact thermometer uses infrared radiation to instantly and accurately measure both body temperature and surface temperature. Use it to ensure you heat up your child's food to an acceptable temperature using the surface temperature mode, and then use the body temperature mode to check if your child is running a fever. It's so effective in fact, that the United States FDA has given their stamp of approval on it!

If all that wasn't enough, there is even the ability to link the unit to your iPhone® or Android® Smartphone, and using a free App you can track your child's temperature over time (and more!), or even use it as a guide for planning pregnancy. See our website for info on the app.

Specifications	
Temperature range	0-50˚C (32˚F - 122˚F)
Accuracy	±0.3˚C
Response time	0.5 sec
Power off	Automatic
Measuring distance	50-150mm
Dimensions	145(L) x 57(W) x 35(D)mm

RELATED PRODUCT...
Other thermometers available see page 23

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7201	$89.95	$80.95	$71.95

Pill/Medication Container with Alarm

NEW 2013

This moulded nylon case has 7 compartments which could hold, probably, up to 100 pills or capsules. It is meant to be kept in a pocket so that when the alarm goes off you will be able to feel the vibration and take your medication. The timer unit has a small LCD display and is easy to set/programme.

- Dimensions: 95(L) x 60(W) x 25(H)mm

Medication not included

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7237	$12.95	$11.35	$10.35

Automatic Blood Pressure Monitor

Monitor your blood pressure at home. Using the oscillometric method it is designed to take accurate blood pressure readings from the wrist and calculate the average as well as store up to 3 readings. Press the start button and the microprocessor automatically calculates systolic and diastolic pressure as well as heart rate. Cost effective - less than one visit to a doctor. It's easy to use with a full instruction manual. Requires 2 x AAA batteries.

- 60 group memory
- Pulse & LCD display
- Arrhythmia detection function (IHB)
- Calculate average measurements
- Stores readings for up to 3 individuals
- Automatic inflate and deflate
- Automatic power off function
- Pressure range: 0mmHg299mmHg
- Pulse range: 40-199 times per min

Note: This is not a medical diagnostic device and is intended to provide indicative readings only. It should be used in conjunction with advice from a doctor or other clinical professional.

	Cat.	Qty 1+	Qty 4+	Qty 10+
	QM-7254	$49.95	$44.90	$39.90

Automatic Upper Arm Blood Pressure Monitor

This pressure-cuff unit fits on your upper arm like the ones you find in most doctors rooms. This is called the Oscillometric system. It will measure 30-280mm mercury, and 40-195 pulse. It is fully self-contained, will blow up the cuff and then release it in a controlled way, automatically.

Specifications	
Readings	Up to 100 readings
Accuracy	± 3mm Hg, ± 5% of pulse
Display	Date/Time, Systolic, Diastolic and pulse rate
Power	Requires 4 x AA batteries
Console dimensions	125(L) x 83(W) x 153(H)mm

NEW 2013

1 YEAR WARRANTY

Note: This is not a medical diagnostic device and is intended to provide indicative readings only. It should be used in conjunction with advice from a doctor or other clinical professional.

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7261	$59.95	$53.95	$47.90

Mini Electric Wet and Dry Shaver

NEW 2013

Ideal for campers and mariners who need a quick way to keep their beard under control. Easy to clean and maintain, and only runs on 2 x AAA batteries (not included). It's waterproof and dustproof with a double blade design for a comfortable smooth shave.

- Dimensions: 40(W) x 78(H) x 14(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1521	$6.95	$6.25	$5.50

Men's 3-In-1 Wet/Dry Groomer

Trim your beard, moustache, sideburns, nose, ear or other facial hair. Cordless and waterproof, the nozzle can be rinsed after use. Three attachments are included - a long hair trimmer, beard/moustache and nose/ear hair trimmers. Runs on a single AA battery.

- 3 interchangeable heads
- Waterproof and hygienic
- 125mm long

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1519	$19.95	$17.70	$15.70

Dual Sided Magnifying Mirror

Never have trouble putting in those contacts or applying your make-up again. This dual sided mirror has one mirror at 1 x magnification and the other at 5 x magnification. The frame is rimmed with a LED light making it ideal to use at night or in poor light conditions.

- Mirror dimensions: 110(Dia.)mm
- Mirror and frame dimensions: 150(Dia.)mm
- Requires 3 x AA batteries (use SB-2425)
- Dimensions: 180(L) x 110(W) x 200(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1067	$24.95	$22.35	$19.70

BATHROOM GADGETS

Waterproof Bathroom Clock with Suction

A truly convenient and waterproof analogue clock. The suction cup allows you to mount it on to any smooth surface like a tiled wall or mirror. Ideal for renters or the family bathroom.

Available in blue and pink.

- Requires 1 x AA battery (use SB-2425)
- Dimensions: 130(Dia)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Blue	AR-1757	$9.95	$8.75	$7.75
Pink	AR-1758	$9.95	$8.75	$7.75

Water Resistant FM Shower Radio

This elegant unit features spring-loaded hanging hook, push button tuning and volume. It also has a dial light which stays on for a few seconds to assist in station identification etc.. Also has timer alarm and is splash proof.

- Requires 3 x AA batteries (use SB-2425)
- Dimensions: 145(L) x 80(W) x 45(D)mm

NEW LOWER PRICE

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1873	$24.95	$22.35	$19.70

Baby Monitors & Kitchen Gadgets

UV Sanitiser Toothbrush Holder

An ultraviolet light box to sterilise your toothbrushes and stop the build up of potentially harmful bacteria. It helps remove odours and can hold up to 4 tooth-brushes at one time. Features an integrated drip tray and toothpaste holder.

- Mains power supply included
- Dimensions: 235(H) x 115(L) x 90(W)mm

Note: Toothbrush not included

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1191	$49.95	$44.90	$39.90

BABY MONITORS

2.4GHz DIGITAL Wireless Audio Baby Monitor

Transmits audio wirelessly up to 50m using 2.4GHz for clear, interference free transmission. Features a night light function which can be set to turn on when movement is detected, adjustable volume and low battery indication. It plays music with five pre-programmed lullabies, and the parent unit alerts you if the room temperature is above/below the chosen setting. It has a belt clip and talk button key so you can actually talk to the baby as if you are in the room. The baby unit is equipped with rechargeable docking station. Units are both mains and battery powered.

- Backlit LCD display screen
- Power on/off function
- 5V DC port
- Includes 2 x 5V DC mains power supply and instruction manual

Baby unit:
- Requires 3 x AAA batteries
- Built-in mic and speaker
- Dimensions: 98(H) x 103(W) x 44(D)mm

Parent unit:
- Rechargeable 2.4V Ni-MH battery (included)
- Built-in speaker
- Dimensions: 125(H) x 60(W) x 20(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QC-3261	$69.95	$62.95	$55.95

2.4GHz Wireless Digital Baby Monitor

NEW 2013

As a mother you know there is nothing more important than the connection with your baby now you can see and hear your baby with the latest technology. It is 100% digital in which it avoids interference from other electronic devices, has an in-built infrared night vision, for round the clock monitoring and is wireless it also forwards you super clear picture and sound onto the 7" monitor. This new baby monitor will appeal to parents who want the very best for there new born.

Note: This device can also be used for security to monitor unwanted predators.

- Wireless - 4 channel
- Supports 4 cameras for one monitor
- 7"LCD colour screen
- Infrared night vision
- High sensitivity microphone
- 2way communication
- VOX function
- 1 x 6V DC Adapter
- 1 x 12V DC Adapter
- 1 x AV Cable

Specifications	Camera
Imaging sensor	CMOS
Horizontal resolution	360 TV Lines
Viewing angle	60°
Min. illumination	1.5 Lux
Bandwidth	4MHz
Night vision range	3 - 5m
Battery working time	8 hrs (Using 4 x AAA battery not included)
Motion detection distance	>5m
Sound control sensitivity	>60dBA
Current consumption	150mA @ 15mA
Power supply	6VDC
Dimension	100(L) x 86(W) x 86(D)mm

1 YEAR WARRANTY

	Cat.	Qty 1+	Qty 3+	Qty 6+
Baby Monitor	QC-3649	$169.00	$151.95	
Spare Camera	QC-3648	$79.95	$71.95	$63.95

KITCHEN GADGETS

3kg Kitchen Scales

These scales are easy to use and will come in handy around the kitchen. Measuring up to 3kg, they have a resolution of 1g and a tare function so that you can disregard the weight of the mixing bowl and only weigh the ingredients. Will weigh in both metric and imperial.

- Requires 2 x AAA batteries
- Measures up to 3kg
- Resolution: 1g
- Auto power off
- Dimensions: 145(W) x 210(L)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	QM-7257	$24.95	$22.35	$19.70

Countdown Timer

Use it for cooking, parking, exercising, studying or even timing the kids on the computer. It's water resistant, easy to use, has a memory setting for frequently used values and the buzzer alerts you to when your time is up.

- Countdown range 99 hours 99 minutes 99 seconds
- Batteries included
- Dimensions: 88(W) x 130(H) x 22(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0271	$24.95	$22.35	$19.70

Rare Earth Fridge Magnets - Pack of 5

The nifty fridge magnets utilise rare earth magnets that are strong enough to hold up to 10 sheets of paper each on your fridge! Great for the home or office, their small size won't cover up your photos, notes or shopping lists.

- Each set includes 5 magnets.
- Dimensions: 20(H) x 11(Dia)mm

Paper not included

	Cat.	Qty 1+	Qty 6+	Qty 20+
Pack of 5	LM-1629	$9.95	$8.75	$7.75

Automatic Liquid Soap Dispenser

With a built in infrared sensor, this automatic liquid soap dispenser is a functional yet stylish addition to any kitchen or bathroom sink. It features a blinking LED to indicate operation, a large 410ml (14 ounce) liquid soap reservoir for fewer refills and a manual dispensing button to provide continuous soap flow for larger cleaning tasks. No mess, no fuss and best of all, this touch-free technology minimises the spread of germs.

- Requires 4 x AA batteries (use SB-2425)
- Dimensions: 90(W) x 130(D) x 200(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	GH-1187	$14.95	$13.35	11.70

GENERAL CONSUMER PRODUCTS

Keyring Keyfinder with LED Torch

Have you ever misplaced your keys and needed them in a hurry? This brilliant device will generate a beeping sound when it detects a whistle. It features a high performance IC with built-in auto power off function to preserve the batteries. It will work effectively within a 3 metre radius. It also doubles as a handy keyring torch!

- Batteries included.
- Uses 2 x LR44 batteries
- Dimensions: 52(L) x 40(W) x 15(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0351	$4.95	$4.45	$3.90

Wireless "Object Locator"

Locate misplaced objects such as keys, TV remote, glasses, children, wallet etc. No need to whistle, you simply press the master transmitter (colour coded) and the lost item beeps back. Range 7-10 metres which is usually adequate. Connect receivers by double sided. tape or lanyard to frequently misplaced items.

- Supplied: 1 x keyfob transmitter, 3 x separate receivers
- Dimensions: Transmitter 60(L) x 32(W) x 7(D)mm (receivers slightly smaller)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0354	$29.95	$26.90	$23.70

CLOCKS

Mini Talking Alarm Clock

What makes this LCD alarm clock unique is its ability to announce the time using a clear synthesised voice. It is silver in colour and features a protective front panel which unfolds into a desk stand - making it an ideal travellers clock. The alarm can be set to cuckoo, cock crow or beep-beep chimes which increase in repetition as the 60 second alarm duration expires. The clock can be set to announce the time on every hour or when the top mounted button is pressed.

- Requires 2 x AAA batteries (use SB-2413)
- Dimensions: 77(H) x 30(W) x 23(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0238	$12.95	$11.35	$10.35

Extra Large "Easy Read" LED Alarm Clock

NOTE! 2" LED Display

This LED alarm clock is incredibly simple to use - you won't even need to read the instructions to set it! The extra large red number display is excellent for tired eyes, making reading the time easy at night or from a distance. This would be a great alarm clock for an older person or the guest bedroom.

- Power: 240V mains power or 1 x 9V battery (use SB-2423)
- Display dimensions: 140mm x 50mm
- Dimensions: 80mm height, 190mm width, 80mm depth (base)

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-1791	$24.95	$22.35	$19.70

Superb LED Alarm Clock with FM Radio

A compact, sleek and contemporary designed LED alarm clock that is full in features. Wake up to the sound of your favourite FM station with its in-built PLL (Phase locked loop) tuner for drift-free reception. The LED display is 24mm in height so it's very easy to read the time even without your glasses. Mains power supply included.

- Amber display
- Dual alarm
- Battery backup in case of mains loss
- Wake by radio or buzzer
- Hi-Lo dimmer
- 10 station memory
- Snooze 5-60 minutes
- Dimensions: 150(W) x 65(H) x 80(D)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	AR-1801	$29.95	$26.90	$23.70

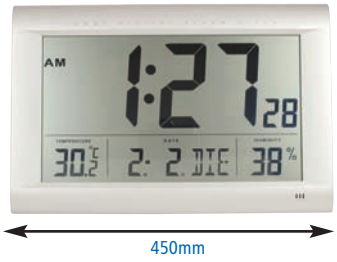
LCD Alarm Clocks with Temperature & Calendar

With clearly visible size and stylish designs these LCD alarm clocks are ideal for your home or office workspaces. With several handy features they relay the time, date and temperature. Displays hour, minute, second, month, date and day.

XC-0221

- Thermometer measuring in Celsius or Fahrenheit
- Humidity measurement by percentage
- Alarm function control - turn on/off
- Alarm and snooze function
- Built in stand

Two models to choose from



XC-0223

Specifications	Large XC-0221	Extra Large XC-0223
LCD Screen	192mm	330mm
Digits Height	60mm	100mm
Batteries Required	2 x AA	3 x C
Dimensions	280(L) x 190(H) x 25(W)mm	450(L) x 260(H) x 20.5(W)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
Large 192mm	XC-0221	$39.95	$35.90	$31.90
Extra Large 330mm	XC-0223	$99.00	$88.95	$78.95

STOP WATCHES

Sports Stopwatch

This handy 1/100th of a second sports timer will be a useful addition to any sports bag. Not only does it measure elapsed time for up to 24hrs, our water resistant stopwatch has a split time (Lap) function as well as alarm and calendar functions.

- Dimensions: 55(W) x 65(H) x 15(D)mm
- Includes 600mm lanyard

NOTE! Thousands Sold

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0270	$12.95	$11.35	$10.35

High Performance Stopwatch

For those who need more than the XC-0270 Stopwatch. This unit will do; 999 laps & splits, fastest, slowest & average lap display. Up to 100 laps memory record. It can count rowing stroke rates. It has a pacer function for training, dual timer and more. Lithium battery included. Black in colour. Comes with lanyard.

- Dimensions: 68(L) x 82(W) x 21(H)mm

	Cat.	Qty 1+	Qty 3+	Qty 6+
	XC-0287	$24.95	$22.35	$19.70

OFFICE GADGETS

Solar Powered Flashing Sign Display

A multitude of uses for this handy little display unit. You simply print out whatever you want to say on the sign, then slip it into the display. The solar cell keeps it flashing ad infinitum. Shop signs, desk photos, warning signs. Wall or table mount in landscape or portrait orientation. 1000s of uses and works in normal indoor light levels.

- Dimensions: 132(W) x 100(H) x 10(D)mm

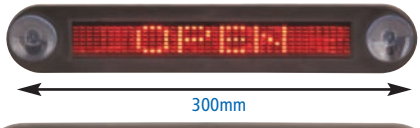
	Cat.	Qty 1+
	LA-5105	$9.95

LED Scrolling Message Signs

Programmable scrolling message signs for automotive or home, shop or office applications. Attach the XC-0201 to the rear window of your car to display messages to other motorists. It could be used by taxi and bus drivers to communicate vacancy or destination, emergency traffic control vehicles could communicate messages to slow down. Use the XC-0202 in shop windows, schools, offices or restaurants to catch a customer's attention with the daily specials. Switch between pre-programmed messages easily with the supplied remote control and adjust the scrolling speed with ease.

SUCTION MOUNT AUTOMOTIVE LED SCROLLING SIGN
XC-0201
LED SCROLLING SIGN
XC-0202

Specifications	XC-0201	XC-0202
Mount	Suction	Adjustable Stand
Power	12VDC cigarette lighter socket (incl.)	12VDC car cigarette lighter socket or Mains Adaptor (incl.)
No. of LEDs	280 (7 x 40)	350 (7 x 50)
Programmable messages	10	9
No. of char. per message	80	250
Dimensions:	300(L) x 50(W) x 10(D)mm	430(L) x 90(H) x 65(D)mm



XC-0201

XC-0202

	Cat.	Qty 1+	Qty 3+	Qty 6+
Suction Mount Scrolling Sign	XC-0201	$49.95	$44.90	$39.90
Stand Mount Scrolling Sign	XC-0202	$59.95	$53.95	$47.90

Order Form

Post	Fax	Phone	Email
Freepost to Jaycar Techstore PO Box 7172 Silverwater DC NSW 1811	(02) 8832 3118	**Free Call** 1800 022 888 **Credit Card Orders and International / Enquiries** (02) 8832 3245	techstore@jaycar.com.au **Website** www.jaycar.com.au

Jaycar Electronics TECHSTORE

Delivery Details

Name: Phone: Fax:

Address: Email:

Have you purchased by Mail Order from us before? ☐ Yes ☐ No

If YES, please specify your account number

Country: State: Postcode:

Has your billing address changed since your last order? ☐ Yes ☐ No

Qty	Cat No.	Description	Unit Price	Total Price	Office Use Only

Freight

Invoice Value	Standard / Road Freight 2-5 working days	Premium Freight Orders made before 12:00pm delivered next work working day for Metro areas, other areas 1-2 working days Premium freight requires a street address number. No delivery to P.O. boxes
$10-$99.99	$7.00	$9.00
$100-$199.99	$9.00	$11.00
$200-$499.99	$12.00	$16.00
Over $500	$17.00	POA*
Over 20kg	POA*	POA*
Overseas Airmail	POA*	NA

One whole dollar per $100 goods value or part there of (Australia only). See Terms & Conditions for details.

* POA: Our staff will calculate the freight charge based on the order, freight method and destination. Staff will promptly contact you to advise of the charge

Subtotal	
Insurance	
Freight	
Subtotal	
Less Credits	
Total	

Minimum order $10

Payment Details

Rewards or Trade Card Number

☐ Cheque/Money Order in A$ (do not post cash) ☐ Credit Account (approved customers only)

☐ Gift Card

☐ Mastercard ☐ Visa ☐ Amex AMEX incurs a non-refundable 2.7% + GST Surcharge

Signature

Card Num ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Exp: ☐☐/☐☐

Aerosol, flammables, heavy and bulky items can only be sent by road.

Out of stock lines: Items under $10 are not back ordered. Please re-order once item(s) are in stock. If your order is unusually bulky, heavy or fragile, we may choose to send your goods to you by road at our expense. We cannot send goods by road to a PO Box. However, if you feel your order may fit into this category, please include a street address -either work or home.

Freight information. Simply add the amount shown in the freight charges chart on the left. Don't forget to add extra amount for airmail and insurance if you require these services. These charges are for goods sent by post in Australia only - not airmail overseas or road freight.

Final check. Please make sure that you have given full details of the products you require, the correct prices, the full postage or transportation cost, plus make sure that your name and address are legible.

Your order will arrive faster if all details given are correct.
Minimum order amount $10.
14 Day satisfaction guarantee.
Provided that you have returned the goods in original condition (and that means the outer packaging, if any, must be unmarked), You must keep your invoice as proof of purchase. We will not refund post, packing, insurance or other transport charges.Freight on returned goods must be pre-paid, Do not return goods by COD, Please do not ask for a refund after 14 days from purchase date (this allows for transportation delays).

*Overnight delivery. Available on request subject to conditions: Max physical/cubic weight 5kg. Area must be covered by next day service (phone for details). No PO Box address.

*Please see the Jaycar website for full terms and conditions.

Terms & Conditions

PRICES
All prices quoted in this catalogue include Goods and Services Taxes (GST) and are current at the time of printing. So you can be confident of price stability. At Jaycar Electronics, we make every endeavour to maintain prices for the life of the catalogue. However, factors beyond our control (such as changes in foreign currency exchange rates, changes in base material costs etc.) may vary costs and we reserve the right to amend prices accordingly.

STOCK AVAILABILITY
At Jaycar Electronics we are constantly seeking new products and due to the rapid developments within the electronics industry some products in this catalogue may become obsolete or discontinued during its life. In the event of this happening we apologise for the inconvenience and where possible will substitute a similar product of equal or better quality.

OUR RAINCHECK
If your local Jaycar Electronics store has sold out of a currently advertised line, we will be happy to issue you with a 'raincheck'. This 'raincheck' can be presented as soon as the stock arrives and you can buy the original item (or its comparable product) at the advertised price - even if the original promotion has ended. 'Rainchecks' do not apply to items that have been advertised as 'limited', 'discontinued', 'surplus' or 'clearance' ranges.

' CHANGE OF MIND' RETURNS
Although not obligated to do so, at Jaycar Electronics we appreciate that you may have second thoughts about your purchases and will give a 'Change of Mind' refund if goods* are returned within 7 days (14 days for mail order and internet customers). For 'Change of Mind' purchases, goods can only be accepted back for refund or exchange in "as sold" condition including undamaged original packaging, complete instruction books, manuals, accessories, etc. If freight expenses of any type have been incurred, these are not refundable. We regret that any cash, credit card, or EFTPOS refunds over $250 must be refunded by cheque for security reasons. Jaycar does not provide credit notes. Your Sales Docket must accompany all returns.
*Note:Refunds on 'Change of Mind' purchases do not apply to books, batteries, headphones, health products, semiconductors, computer software, all recordable media, some tools and nonmultimeter test equipment (including cathode ray oscilloscopes), step-down transformers (240-100V), some party lighting and associated products.

WARRANTIES
Jaycar warranty period is 3 months from date of purchase, or such longer period as stated in this catalogue. Many products carry one year, two year, five year, or lifetime warranty or may qualify for over-the-counter replacement. These items are identified in the catalogue by the icons explained on page 5. If any defect in materials or workmanship in product sold by Jaycar Electronics is identified and notified to us within the warranty period then we will, at our discretion repair or replace the product. Jaycar Electronics does not accept any liability beyond this for consequential loss. Warranty is subject to us being satisfied that a defect was caused by defective workmanship or materials and was not caused by or was not substantially contributed to by other factors beyond our control, including (but not limited to) defective installation, maintenance, or repair; alterations or modifications of the product in a manner not recommended by the manufacturer; or any neglect, misuse or excessive use. The original Sales Docket or cash receipt must accompany warranty claims to provide starting date of the warranty period.

KIT WARRANTY
Most kits are successfully constructed with few problems; however, once the kit is under construction all warranty is void, as we cannot guarantee assembler's workmanship or components that have been used.

STATUTORY WARRANTIES
Any statutory warranties applicable to your purchase will be honoured by Jaycar in addition to the warranties set out herein. If there is any conflict between any warranty herein contained and a statutory warranty, the terms of the statutory warranty will prevail.

FREIGHT CHARGES RELATING TO WARRANTY ITEMS
Warranty repairs or replacements of goods is free of charge however freight charges to and from the service department is required to be paid by the customer.

TRADE CARD
If you are professionally engaged in some aspect of the electronics industry on a daily basis, you may qualify for a Jaycar Electronics Trade Card. This facility is available in every store including TECHSTORE, to provide you with the opportunity to purchase at special trade prices. Simply call into your local Jaycar store and ask the manager or if you are a TECHSTORE customer email us at techstore@jaycar.com.au. We can provide you with convenient locations, fantastic service and great prices! (Not available for transactions outside Australia and New Zealand.)

ACCOUNT FACILITIES
Jaycar Electronics is happy to provide account facilities for the following organisations:
- Schools (Government & non-Government), TAFE, Colleges and Universities
- State & Federal Government Depts. including research facilities
- Hospitals
- Mining companies
- TV & Radio Stations
- ALL public ('LTD') companies
- ALL 'Pty Ltd' companies, Sole Traders or Partnerships must complete an account application form. Simply write to "The Financial Controller", PO Box 7172 Silverwater NSW 1811.

If you are one of the above you can buy from us on a 30-day (strictly from invoice) account. The invoice will go with the goods or to your accounts payable office (you nominate).
Non Payment of monies due will be cause to discontinue supply and to commence recovery procedures.

RECOVERY OF MONIES OWED
In the event that Jaycar needs to recover monies owed then the full balance on the account becomes due and payable and all costs of recovering this money will be born by the debtor.

TECHSTORE - MAIL ORDER & INTERNET PURCHASES
For Mail Order & Internet Purchases special conditions apply:
- Goods - Aerosols, flammable, heavy and bulky items cannot be sent by post.
- Payment - via cheque, money order or credit card (MasterCard, Visa, American Express)
- Minimum Order Value - Mail order & Internet purchases have a minimum order value of $10.
- International Orders - Please remember you may have to pay customs and importing charges at your end (if applicable). We cannot supply full customs documentation, but all parcels include required customs dockets. Should you require to return goods for any reason from outside Australia it is essential that customs documentation is included. If customs dockets are not included it can be a costly exercise to have the goods cleared by Customs and the customer must pay this charge. Failure to include customs documentation may result in long delays. Note: Jaycar Electronics cannot accept any responsibility or liability for the suitability of any product for use outside Australia, nor its compliance with local regulations.
- Freight - Various freight options and rates are given on the order form. After selecting the freight option that suits you, please clearly mark it and add these additional changes to the total on your order. Goods cannot be delivered to a post office box via road or air courier service.
- Missing or Damaged Goods - At Jaycar, we've sent out hundreds of thousands of parcels via post over the last 20+ years and the number of items that have been genuinely lost is less than 0.001%. We've found road and air transportation equally as reliable. However it must be emphasised that our responsibility for the goods ceases when the goods are handed over to the nominated carrier. Risk on the goods passes to you when the goods leave our warehouse. Our order form allows you to elect to have goods insured against loss in transit at your cost — otherwise loss of goods in transit is at your own risk. All claims for missing and damaged goods in transit must be lodged with the carrier or local Post Office. If goods have been insured please contact Jaycar Electronics.
- Insurance - If you wish to insure, insurance will cost you 1% of the value of the goods and we are happy to arrange it on your behalf. This insurance covers goods DAMAGED in transit. If you order by phone you will be asked if you wish us to insure on your behalf. Insurance will cost $1 for every $100 value or part thereof eg. If your order is for $145 the insurance will be $2. (Note: Some items such as solar panels etc. are difficult to ship and have a higher insurance fee of $7.50 per $500.) If you do not wish to insure a statement saying 'Insurance Declined' will appear on the order. If you post an order don't forget to consider insurance. We do not automatically issue insurance unless you specify. If you don't mention insurance you will NOT be insured.
- Out of Stock Items - items under $10 are not back ordered. Please re-order once item(s) are in stock.

STORE LOCATIONS AND HOURS
Store locations and hours are located on the back of this catalogue and were correct at time of print. For new stores and current trading hours visit our website at www.jaycar.com.au.

JAYCAR AUTHORISED STOCKISTS
A listing of Jaycar Stockists in your area can be found on the inside back cover of this catalogue. For new Stockists visit our website at www.jaycar.com.au. If you are a reseller of electronics goods you may be able to increase your income by reselling Jaycar products. For more information contact The Dealer Manager on 1300 738 555 or email dealers@jaycar.com.au.

ANY PROBLEMS
We are proud of our standing with our Customers and are keen get any feedback, good or bad, to improve our service, products, stores - in fact any aspect of our business. So please, do not hesitate to contact us.

PRIVACY POLICY
Jaycar endeavours to protect your privacy by:
- Only collecting information from those we deal with which is necessary for our business to adequately service our customers.
- Except where the law says otherwise, the external organisations having access to this information are approved mailing houses that mails our marketing material to our customers or credit card/credit reference companies for finance approval.
- We do not use any personal information we have collected for any other purposes without seeking the individual's permission.
- We will take reasonable steps to ensure personal information is accurate and complete at all times.
- Individuals are able to remain anonymous when entering a transaction, by paying cash; they do not have to disclose personal information.
- We will hold the information indefinitely so future marketing material can be sent to the individual. If you do not wish to receive this material in the future, please email the privacyofficer@jaycar.com.au to have your details removed.
- Personal information will not be disclosed to any organisation individual who has not given a commitment to deal with such information in a way, which is consistent with the National Privacy Principles and will be disclosed only in accordance with those Principles.
- All information is securely held by the organisation to prevent tampering, interference by outside sources or unauthorised use by employees or agents of the organisation.
- Individuals can access the information that our organisation holds on them in accordance with the National Privacy Principles.
- If an individual believes the information we hold on them is not accurate they have the right to apply to the organisation to have that information corrected.
- A Privacy Officer has been appointed to assist all individuals with requests for access to information or concerns about the handling of their information. That person may be contacted via email privacyofficer@jaycar.com.au or you may forward such requests in writing to Jaycar Electronics, PO Box 7172 Silverwater NSW 1811.

WHOLESALE ENQUIRIES
For wholesale enquiries, please refer to our main supplier Electus Distribution (Australia: 1300 738 555 & New Zealand: 0800 235 328).

LEGAL JURISDICTION
Jaycar operates under the laws and regulations of the State of New South Wales. Therefore any legal disputes will be conducted in courts or tribunals situated in New South Wales and under the laws and regulations of New South Wales.

DISCLAIMER
All possible care has been taken in the preparation of this catalogue. However, specification and particulars in relation to the products referred to in this catalogue are subject to change without prior notice. Some photographs contain samples which are representative only. Stocked item may vary in colour and look. Jaycar Electronics will not be held liable for any errors or omissions.

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121 Wollongong St, 2609
Ph: (02) 6239 1801
*Fri: 8.30-6.30

NSW

ALBURY
565 Hume St, 2640
Ph: (02) 6021 6788
*Thurs: 8.30-6.30

ALEXANDRIA
647 Botany Rd, 2015
Ph: (02) 9699 4699
*Thurs: 8.30-7.30

BANKSTOWN
363 Hume Hwy, 2200
(Cnr Meredith St)
Ph: (02) 9709 2822
*Thurs: 8.30-7.30

BLACKTOWN
2/102 Sunnyholt Rd, 2148
(Cnr Bessemer St)
Ph: (02) 9678 9669
*Thurs: 8.30-7.30

BONDI JUNCTION
125 Bronte Rd, 2022
(Cnr Birrell Rd)
Ph: (02) 9369 3899
*Thurs: 8.30-7.30

BROOKVALE
208 Harbord Rd, 2100
Ph: (02) 9905 4130
*Thurs: 8.30-7.30

CAMPBELLTOWN
2/4 Rose St, 2560
Ph: (02) 4620 7155
*Thurs: 8.30-7.30

CASTLE HILL
Shop 2/2 Anella Ave
Cnr of Anella & Victoria
Ave, 2154
Ph: (02) 9634 4470
*Thurs: 8.30-7.30

COFFS HARBOUR
Shop 7 The Bailey Centre,
150 Pacific Hwy, 2450
Ph: (02) 6651 5238
*Thurs: 8.30-7.30

CROYDON
700 Parramatta Rd, 2132
Ph: (02) 9799 0402
*Thurs: 8.30-7.30

ERINA
1 Aston Rd, 2250
Ph: (02) 4365 3433
*Thurs: 8.30-7.30

GORE HILL
188 Pacific Hwy, 2065
Ph: (02) 9439 4799
*Thurs: 8.30-7.30

HORNSBY
130 George St, 2077
Ph: (02) 9476 6221
*Thurs: 8.30-7.30

LIVERPOOL
3/381 Macquarie St, 2170
(Cnr Castlereagh St)
Ph: (02) 9821 3100
*Thurs: 8.30-7.30

MAITLAND
2/175 High St, 2320
Ph: (02) 4934 4911
*Thurs: 8.30-7.30

NEWCASTLE
224 Maitland Rd, (Cnr
Dent St) Islington, 2296
Ph: (02) 4965 3799
*Thurs: 8.30-7.30

PENRITH
20 Henry St, 2750
Ph: (02) 4721 8337
*Thurs: 8.30-7.30

PORT MACQUARIE
Unit 7, 148 Lake Rd, 2444
Ph: (02) 6581 4476
*Thurs: 8.30-7.00
*Closed Sunday

RYDALMERE
320 Victoria Rd, 2116
Ph: (02) 8832 3120
*Thurs: 8.30-7.30

SYDNEY CITY
127 York St, 2000
(Opposite QVB)
Ph: (02) 9267 1614
*Mon-Fri: 8.30-6.00
*Thurs: 8.30-7.30

TAREN POINT
49A Captain Cook Dr,
Caringbah, 2229
Ph: (02) 9531 7033
*Thurs: 8.30-7.30

TUGGERAH
118 Pacific
Highway, 2259
Ph: (02) 4353 5016
*Thurs: 8.30-7.00
*Closed Sunday

WAGGA WAGGA
154 Baylis St, 2650
Ph: (02) 6931 9333
*Thurs: 8.30-7.00
*Closed Sunday

WARNERS BAY
2/276 Macquarie
Rd, 2282
Ph: (02) 4954 8100
*Thurs: 8.30-7.30
*Sun: 10.00-4.00

WOLLONGONG
357 Keira St, 2500
(Cnr Swan St)
Ph: (02) 4226 7089
*Thurs: 8.30-7.30

NT

DARWIN
297 Bagot Rd,
Coconut Grove, 0810
Ph: (08) 8948 4043
*Fri: 8.30-6.30

QLD

ASPLEY
1322 Gympie Rd, 4034
Ph: (07) 3863 0099
*Thurs: 8.30-7.30

BROWNS PLAINS
29 Grand Plaza Dr, 4118
Ph: 1800 022 888
*Thurs: 8.30-7.30
*Sun: 10.00-4.00

CABOOLTURE
59 Beerburrum Rd, 4510
Ph: (07) 5432 3152
*Thurs: 8.30-6.30

CAIRNS
153 Mulgrave Rd, 4870
Ph: (07) 4041 6747
*Thurs: 8.30-7.30

CALOUNDRA
68 Caloundra Rd, 4551
Ph: (07) 5491 1000
*Thurs: 8.30-6.30
*Closed Sunday

CAPALABA
2/79 Redland Bay Rd, 4157
Ph: (07) 3245 2014
*Thurs: 8.30-7.30

GOLD COAST
2574 Gold Coast Hwy,
Mermaid Beach, 4218
Ph: (07) 5526 6722
*Thurs: 8.30-7.30

IPSWICH
2/160 Brisbane Rd,
(OPP Booval Fair)
Booval, 4304
Ph: (07) 3282 5800
*Thurs: 8.30-7.30

LABRADOR
Shop 1A,
142 Brisbane Rd, 4215
Ph: (07) 5537 4295
*Thurs: 8.30-6.30

MACKAY
88 Sydney St,
(Cnr Alfred St), 4740
Ph: (07) 4953 0611
*Thurs: 8.30-6.30

MAROOCHYDORE
100 Aerodrome Rd, 4558
Ph: (07) 5479 3511
*Thurs: 8.30-7.30

NORTH ROCKHAMPTON
Shop 2/415
Yaamba Rd, 4701
Ph: (07) 4926 4155
*Thurs: 8.30-6.30

STRATHPINE
Cnr Bells Pocket &
Gympie Rd, 4500
Ph: 1800 022 888
*Thurs: 8.30-6.30

TOWNSVILLE
167 Ingham Rd,
West End, 4810
Ph: (07) 4772 5022
*Thurs: 8.30-6.30

TWEED HEADS SOUTH
Shop 3a,
32 Machinery Dr, 2486
Ph: (07) 5524 6566
*Thurs: 8.30-6.30

UNDERWOOD
3263 Logan Rd, 4119
Ph: (07) 3841 4888
*Thurs: 8.30-7.30

WOOLLOONGABBA
65 Ipswich Rd, 4102
(Cnr Wilton St)
Ph: (07) 3393 0777
*Thurs: 8.30-7.30

SA

ADELAIDE
221-223 Morphett St, 5000
Ph: (08) 8231 7355
*Fri: 8.30-7.30

CLOVELLY PARK
1168A South Rd, 5042
Ph: (08) 8276 6901
*Thurs: 8.30-7.30

ELIZABETH
5a 1 Philip Highway, 5112
Ph: (08) 8255 6999
*Thurs: 8.30-7.30

GEPPS CROSS
3B/580 Main Nth Rd, 5094
Ph: (08) 8262 3200
*Thurs: 8.30-7.30

REYNELLA
141 Sherriffs Rd, 5161
Ph: (08) 8387 3847
*Thurs: 8.30-6.30
*Closed Sunday

TAS

HOBART
245 Main Rd,
Derwent Park, 7009
Ph: (03) 6272 9955
*Fri: 8.30-6.30

LAUNCESTON
167 Brisbane St, 7250
Ph: (03) 6334 2777
*Fri: 8.30-6.30

NEW ZEALAND TRADING HOURS
Monday to Friday 8.30am to 5.30pm
Saturday 9.00am to 5.30pm
Sunday 10.00am to 4.00pm

CHRISTCHURCH
85 Gasson St,
Sydenham, 8023
Ph: (03) 379 1662
*Fri: 8.30-6.30

DUNEDIN
80 Crawford St
Dunedin, 9016
Ph: (03) 471 7934
*No late night trading

GLENFIELD
135 Wairau Rd,
(Cnr Tristram Ave)
Wairau Valley, 0627
Ph: (09) 444 4628
*Fri: 8.30-6.30

HAMILTON
92 Commerce St,
Frankton, 3204
Ph: (07) 846 0177
*Thurs: 8.30-6.30

HASTINGS
819 Heretaunga St West,
Saint Leonards, 4120
Ph: (06) 876 0239
*No late night trading

MANUKAU
42a Lambie Dr,
Manukau, 2104
Ph: (09) 263 6241
*Thurs: 8.30-6.30

MOUNT WELLINGTON
16-18 Fisher Cres, 1060
Ph: (09) 258 5207
*No Sunday or
late night trading

NEWMARKET
231 Khyber Pass Rd,
(Cnr Boston Rd), 1023
Ph: (09) 377 6421
*Thurs: 8.30-6.30

NEW LYNN
2171 Great
North Rd, 0600
Ph: (09) 828 8096
*Thurs: 8.30-6.30

PALMERSTON NORTH
225 Featherston St, 4410
Ph: (06) 353 8246
*Thurs: 8.30-6.30

WELLINGTON
264-272 Taranaki St,
Mount Cook, 6011
Ph: (04) 801 9005
*Thurs: 8.30-6.30

FOR THE LATEST STORE LOCATIONS CHECK ON LINE

VIC

CHELTENHAM
315 Warrigal Rd, 3192
Ph: (03) 9585 5011
*Fri: 8.30-7.30

COBURG
266 Sydney Rd, 3058
Ph: (03) 9384 1811
*Fri: 8.30-7.30

FERNTREE GULLY
815 Burwood Hwy, 3156
Ph: (03) 9758 5500
*Fri: 8.30-7.30

FRANKSTON
80 Dandenong
Rd West, 3199
Ph: (03) 9781 4100
*Fri: 8.30-7.30

GEELONG
180 Moorabool St, 3220
(Cnr Little Ryrie St)
Ph: (03) 5221 5800
*Fri: 8.30-7.00

HALLAM
1/261 Princes Hwy, 3803
Ph: (03) 9796 4577
*Fri: 8.30-7.30

KEW EAST
782 High St, Kew
East, 3102
Ph: (03) 9859 6188
*Fri: 8.30-7.30

MELBOURNE CITY
45 A'Beckett St, 3000
Ph: (03) 9663 2030
*Fri: 8.30-6.30

RINGWOOD
94 Maroondah Hwy, 3134
Ph: (03) 9870 9053
*Fri: 8.30-7.30

SHEPPARTON
Shop 4, 575-585
Wyndham St, 3630
Ph: (03) 5822 4037
*Fri: 8.30-6.30
*Closed Sunday

SPRINGVALE
Cnr Springvale
& Dandenong Rds,
Mulgrave, 3170
Ph: (03) 9547 1022
*Mon-Thurs: 8.30-6.00
*Fri: 8.30-7.30

SUNSHINE
204 McIntyre Rd, 3020
Ph: (03) 9310 8066
*Fri: 8.30-7.30

THOMASTOWN
225B Settlement Rd, 3074
Ph: (03) 9465 3333
*Fri: 8.30-7.30

WERRIBEE
Cnr Synnot &
Wedge St, 3030
Ph: (03) 9741 8951
*Fri: 8.30-7.30

WA

JOONDALUP
Unit 1/4 Packard St
Joondalup, 6027
Ph: (08) 9301 0916
*Thurs: 8.30-7:30
*Sun: 11:00-5:00

MADDINGTON
1A /1808 Albany Hwy,
Kenwick, 6107
Ph: (08) 9493 4300
*Thurs: 8.30-7.30
*Sun: 11.00-5.00

MANDURAH
1/78 Pinjarra Rd, 6210
Ph: (08) 9586 3827
*Thurs: 8.30-7.30
*Closed Sunday

MIDLAND
1/203 Gt Eastern
Hwy, 6056
Ph: (08) 9250 8200
*Thurs: 8.30-7.30
*Sun: 11.00-5.00

PERTH
326 Newcastle St,
Northbridge, 6003
Ph: (08) 9328 8252
*Thurs: 8.30-7.30
*Sun: 11.00-5.00

ROCKINGHAM
1/61 Dixon Rd, 6168
Ph: (08) 9592 8000
*Thurs: 8.30-7.30
*Sun: 11.00-5.00

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Fax: (02) 8832 3229
Int'l Ph: +61 2 8832 3100

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STOCKIST